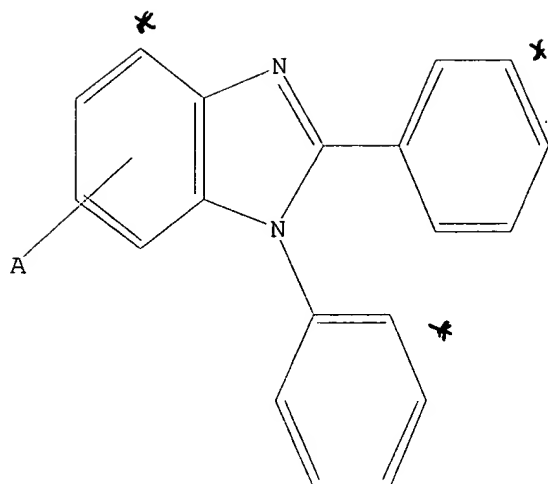


09/759,360

05/20/2006



\* rings are isolated

Structure attributes must be viewed using STN Express query preparation.

=> s l1 full  
 FULL SEARCH INITIATED 12:36:53 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 7399 TO ITERATE

100.0% PROCESSED 7399 ITERATIONS  
 SEARCH TIME: 00.00.01

578 ANSWERS

L2 578 SEA SSS FUL L1

=> fil caplus  
 COST IN U.S. DOLLARS  
 FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
170.02	170.23

FILE 'CAPLUS' ENTERED AT 12:41:24 ON 20 MAY 2006  
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=> s l2  
L3

81 L2

=> d ibib abs hitstr 1-81

L3 ANSWER 1 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

ACCESSION NUMBER: 2005:1216425 CAPLUS  
 DOCUMENT NUMBER: 143:477970  
 TITLE: Preparation of benzene derivatives containing amide moiety as ACC inhibitors  
 INVENTOR(S): Suzuki, Nobuyasu; Nihei, Yukio; Ichinose, Hidehiro; Tanaka, Hideyuki; Yasa, Noriko; Hatanaka, Toshihiro; Masuzawa, Youko; Nakanishi, Eiichi; Kondo, Nobuo  
 PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan  
 SOURCE: PCT Int. Appl., 227 pp.  
 CODEN: PTXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005108370	A1	20051117	WO 2005-JP7392	20050418
V: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

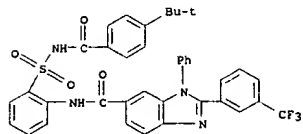
PRIORITY APPLN. INFO.: JP 2004-122199 A 20040416  
 JP 2004-122200 A 20040416  
 JP 2004-122201 A 20040416  
 JP 2005-21616 A 20050128

OTHER SOURCE(S): MARPAT 143:477970  
 GI

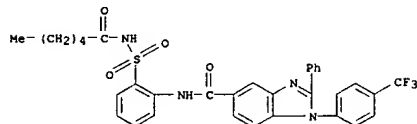
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [X = Q1, etc.; ring A = (un)substituted aromatic hydrocarbon, (un)substituted aromatic heterocycle, (un)substituted cyclic alkenyl, etc.; B = single bond, -CO-, -NHCO-, etc.; R7 = (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, etc.; n = 0-5; V = Q2, etc.; R1-R3 = (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, etc.; R4-R6, R8 = (un)substituted alkyl, (un)substituted alkenyl, (un)substituted alkynyl, etc.] were prepared  
 For

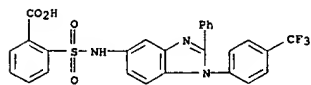
L3 ANSWER 1 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CN 1H-Benzimidazole-6-carboxamide, N-[2-[[[4-(1,1-dimethylethyl)benzoyl]amino]sulfonyl]phenyl]-1-phenyl-2-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 869574-47-0 CAPLUS  
 CN 1H-Benzimidazole-5-carboxamide, N-[2-[[[4-(1-oxohexyl)amino]sulfonyl]phenyl]-2-phenyl-1-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 869574-48-1 CAPLUS  
 CN Benzoic acid, 2-[[[2-phenyl-1-[4-(trifluoromethyl)phenyl]-1H-benzimidazol-5-yl]amino]sulfonyl]- (9CI) (CA INDEX NAME)

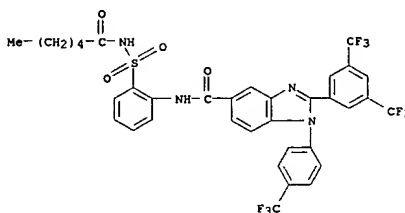


IT 869577-97-9P, 2-Phenyl-1-[4-(trifluoromethyl)phenyl]benzimidazole-5-carboxylic acid 869577-98-0P, 2-Phenyl-1-[4-(trifluoromethyl)phenyl]benzimidazole-5-amine  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of benzene derivs. containing amide moiety as ACC inhibitors for treatment of hyperlipidemia, diabetes, etc.)  
 RN 869577-97-9 CAPLUS  
 CN 1H-Benzimidazole-5-carboxylic acid, 2-phenyl-1-[4-(trifluoromethyl)phenyl]-

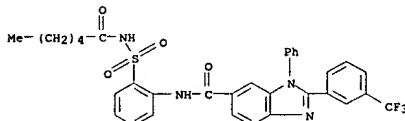
L3 ANSWER 1 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 example, amidation of compd. II [R = OH], e.g., prepd. from 4-nitrobenzoic acid in 4 steps, with anthranilic acid Et ester followed by hydrolysis using NaOH afforded compd. II [R = 2-carboxyphenylamino]. In ACC (acetyl CoA carboxylase) inhibition assays, compd. II [R = 2-carboxyphenylamino] exhibited the activity of 53%. Compds. I are claimed useful for the treatment of hyperlipidemia, diabetes, etc.

IT 869574-43-6P 869574-45-8P 869574-46-9P  
 869574-47-0P 869574-48-1P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzene derivs. containing amide moiety as ACC inhibitors for treatment of hyperlipidemia, diabetes, etc.)  
 RN 869574-43-6 CAPLUS  
 CN 1H-Benzimidazole-5-carboxamide, 2-[3,5-bis(trifluoromethyl)phenyl]-N-[2-[[[1-oxohexyl]amino]sulfonyl]phenyl]-1-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

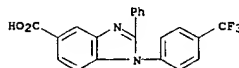


RN 869574-45-8 CAPLUS  
 CN 1H-Benzimidazole-6-carboxamide, N-[2-[[[1-oxohexyl]amino]sulfonyl]phenyl]-1-phenyl-2-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

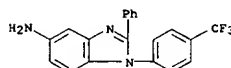


RN 869574-46-9 CAPLUS

L3 ANSWER 1 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 (9CI) (CA INDEX NAME)



RN 869577-98-0 CAPLUS  
 CN 1H-Benzimidazol-5-amine, 2-phenyl-1-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1138745 CAPLUS

DOCUMENT NUMBER: 144:52000

TITLE: Synthesis and photoconductive properties of soluble polyimides bearing heterocyclic substituents on polymer main and side chains

AUTHOR(S): Nosova, G. I.; Aleksandrova, E. L.; Solovskaya, N. A.;

A.: Romashkova, K. A.; Gofman, I. V.; Luk'yashina, V. A.; Zhukova, E. V.; Kudryavtsev, V. V.

CORPORATE SOURCE: Inst. Macromol. Compounds, Russian Acad. Sci., St. Petersburg, 199004, Russia

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (2005), 47(9), 1584-1594

CODEN: VSSBEE; ISSN: 1023-3091

PUBLISHER: Izdatel'stvo Nauka

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Photosensitive soluble polyimides that contain benzimidazole, benzoxazole,

benzothiazole, and oxadiazole moieties in the diamine component of their repeat units were synthesized. Photocond. processes in thin layers of polyimides were studied and the enhancement of the electron-donating properties of the benzimidazole moiety by substituting the hydrogen atom in the cycle for the Me and, especially, Ph group was shown to facilitate an

increase in the intrinsic photosensitivity by a factor of 5 to 8 in the spectral region up to 300 nm. Sensitization by 2,4,5,7-tetranitro-9-fluorenone and various dyes led to a tenfold increase in photosensitivity over the entire visible spectral range as compared with the neat polymer. When benzoxazole, benzothiazole, or oxadiazole cycles were introduced

into polyimides, their intrinsic photosensitivity in the spectral range of 400-700 nm increased, depending on the chemical structure of the diamine component of the repeat unit and the polymer synthesis procedure.

IT 569674-44-BP 569674-48-2P 569674-49-3P

569674-50-6P 871269-59-9P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (photoconductive soluble polyimides bearing heterocyclic substituents)

RN 569674-44-8 CAPLUS

CN 1,3-isobenzofurandione, 5,5'-oxybis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)

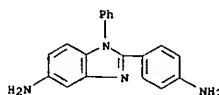
CM 1

CRN 57842-33-8

CMF C19 H16 N4

L3 ANSWER 2 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

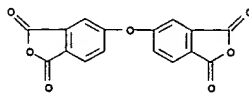
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CM 2

CRN 1823-59-2

CMF C16 H6 O7



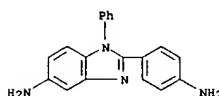
RN 569674-48-2 CAPLUS

CN 1,3-isobenzofurandione, 5,5'-carbonylbis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)

CM 1

CRN 57842-33-8

CMF C19 H16 N4



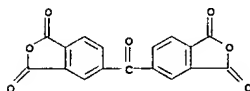
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CRN 2421-28-5

CMF C17 H6 O7

L3 ANSWER 2 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



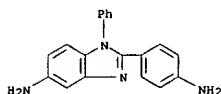
RN 569674-49-3 CAPLUS

CN 1,3-isobenzofurandione, 5,5'-sulfonylbis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)

CM 1

CRN 57842-33-8

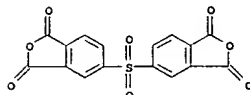
CMF C19 H16 N4



CM 2

CRN 2540-99-0

CMF C16 H6 O8 S



RN 569674-50-6 CAPLUS

CN 1,3-isobenzofurandione, 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)

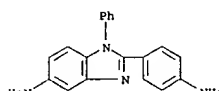
CM 1

CRN 57842-33-8

CMF C19 H16 N4

L3 ANSWER 2 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

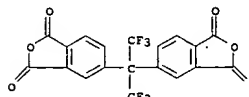
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CM 2

CRN 1107-00-2

CMF C19 H6 F6 O6



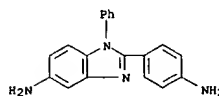
RN 871269-59-9 CAPLUS

CN 1,3-isobenzofurandione, 5,5'-[1,3-phenylenebis(oxy)]bis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)

CM 1

CRN 57842-33-8

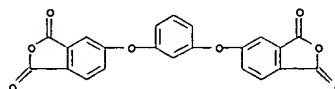
CMF C19 H16 N4



CM 2

CRN 18959-92-7

CMF C22 H10 O8

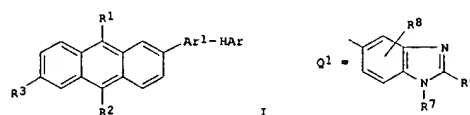


L3 ANSWER 2 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L3 ANSWER 3 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

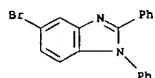
ACCESSION NUMBER: 2005.1126669 CAPLUS  
 DOCUMENT NUMBER: 143:405909  
 TITLE: Preparation of benzimidazole derivatives for use in organic electroluminescent elements  
 INVENTOR(S): Kawamura, Masahiro; Yamamoto, Hiroshi; Hosokawa, Chishio  
 PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 95 pp.  
 CODEN: FIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005097756	A1	20051020	WO 2005-JP6605	20050404
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRIORITY APPLN. INFO.:			JP 2004-112799	A 20040407
OTHER SOURCE(S):			MARPAT 143:405909	
GI				

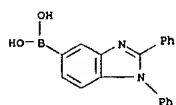


AB The title compds., e.g. I [R1 - R3 = substituent; Ar1 = single bond, divalent connecting group; Har = Q1, etc.; R6 - R8 = substituent] are prepared Thus, 1,2-diphenyl-5-[4-(9,10-diphenylanthracen-2-yl)phenyl]-1H-benzimidazole was prepared in a multistep process from 2-aminoanthraquinone. The high luminescent efficiency of organic electroluminescent elements containing compds. of this invention was demonstrated.

L3 ANSWER 3 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 IT 760212-55-3P 867044-32-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of benzimidazole derivs. for use in organic electroluminescent elements)  
 RN 760212-55-3 CAPLUS  
 CN 1H-Benzimidazole, 5-bromo-1,2-diphenyl- (9CI) (CA INDEX NAME)



RN 867044-32-4 CAPLUS  
 CN Boronic acid, (1,2-diphenyl-1H-benzimidazol-5-yl)- (9CI) (CA INDEX NAME)

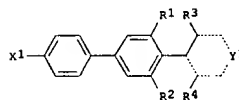


REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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L3 ANSWER 4 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005.281222 CAPLUS  
 DOCUMENT NUMBER: 142:363435  
 TITLE: Organic electroluminescent devices containing specific biphenyl compounds and LCD therewith  
 INVENTOR(S): Fukuda, Mitsuhiro; Kita, Hiroshi  
 PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.  
 CODEN: JKKXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005085658	A2	20050331	JP 2003-317930	20030910
PRIORITY APPLN. INFO.:			JP 2003-317930	20030910
OTHER SOURCE(S):			MARPAT 142:363435	
GI				



AB The devices contain, in one or more of organic compound layers, compds.

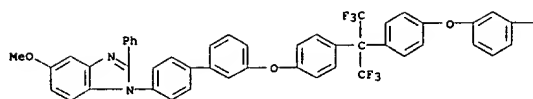
I [X1 = Q1 or Q2 (Z1, Z2 = C or C(R7)); (R7 = H, substituent); R5, R6 = H, substituent; Ar1, Ar2 = aromatic group]; Y1 = 6-membered aromatic ring substituted with X1; R1-R4 = H, substituent (R1 = R2 = R3 = R4 = H); X2-p-C6H4-m-C6H4L2X'2 (X2, X'2 = the same as X1; L2 = heterocycle, O-containing bivalent linking group), and/or X3-p-C6H4-C6H4L3CR8R9L'3X'3 [X3, X'3 = the same as X1; L3 = single bond, O, alkylene; R8, R9 = substituent including (fluoro)hydrocarbyl as the one or both; L'3 = single bond or bivalent linking group]. The compds. may work as hole-transporting host of phosphorescent substances in the layers.

IT 848836-86-2  
 RL: DEV (Device component use); USES (Uses)  
 (emitting layers; long-life organic LED containing sp. biphenyl compds. and showing high luminescent efficiency for LCD)

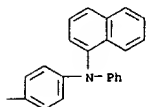
RN 848836-86-2 CAPLUS  
 CN 1-Naphthalenamine, N-phenyl-N-[3'-[4-[2,2,2-trifluoro-1-[4'-[4'-(5-methoxy-2-phenyl-1H-benzimidazol-1-yl)]1,1'-biphenyl]-3-yl]oxy]phenyl]-1-(trifluoromethyl)ethyl]phenoxy][1,1'-biphenyl]-4-yl]- (9CI) (CA INDEX NAME)

L3 ANSWER 4 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

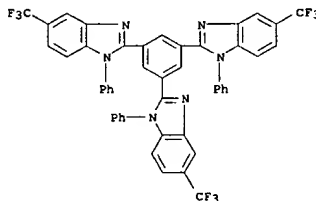


L3 ANSWER 5 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:140278 CAPLUS  
 DOCUMENT NUMBER: 142:229127  
 TITLE: Organic electroluminescent elements with low emission voltage and power consumption and lighting apparatus and displays using them  
 INVENTOR(S): Kato, Eisaku; Oshiyama, Tomohiro; Suzurizato, Yoshiyuki; Kita, Hiroshi  
 PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.  
 CODEN: JKOXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005044790	AZ	20050217	JP 2004-195396	20040701
PRIORITY APPLN. INFO.:			JP 2003-193521	A 20030708

OTHER SOURCE(S): MARPAT 142:229127  
 AB The elements, useful for blue- or white-emitting backlights for LCD, have layers containing compds. L1Xn [L1 = polyvalent hydrocarbon or aromatic linking group; X = (un)substituted N-containing aromatic heterocyclic group linked to L1 at N; n ≥ 2] adjacent to light-emitting layers between anodes and cathodes. The layers show good hole-barrier properties.  
 IT 844510-75-4  
 RL: DEV (Device component use); USES (Uses) (hole-barrier layer; organic EL elements containing N-containing heterocyclic compds. in hole-barrier layers for displays with low emission voltage and power consumption)  
 RN 844510-75-4 CAPLUS  
 CN 1H-Benzimidazole, 2,2'-(1,3,5-benzenetriyl)tris(1-phenyl-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

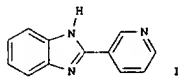


L3 ANSWER 5 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

L3 ANSWER 6 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

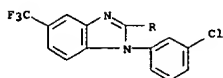
ACCESSION NUMBER: 2005:59099 CAPLUS  
 DOCUMENT NUMBER: 142:261467  
 TITLE: A versatile method for the synthesis of benzimidazoles

AUTHOR(S): Yang, Donglai; Fokas, Demosthenes; Li, Jingzhou; Yu, Libing; Baldino, Carmen M.  
 CORPORATE SOURCE: Department of Chemistry, ArQule Inc, Woburn, MA, 01801, USA  
 SOURCE: Synthesis (2005), (1), 47-56  
 CODEN: SYNTBF; ISSN: 0039-7881  
 PUBLISHER: Georg Thieme Verlag  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 142:261467  
 GI

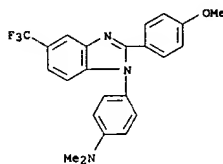


AB A highly efficient and versatile method for the synthesis of benzimidazoles, e.g., I, was achieved in one step by the Na2S2O4 reduction of o-nitroanilines in the presence of aldehydes. Heating a solution of o-nitroaniline and an aldehyde, in the presence of aqueous or solid Na2S2O4, provided facile access to a series of 2-substituted N-H benzimidazoles containing a wide range of functional groups not always compatible with the existing synthetic methods. This methodol. has also been applied to the regioselective synthesis of N-alkyl and N-aryl benzimidazoles by the cyclization of the corresponding N-substituted nitroanilines, resp. In addition, the method was applied successfully to the synthesis of other imidazole containing heterocyclic ring systems such as 1H-imidazo[4,5-b]pyridines and 1H-imidazo[4,5-f]quinoline.  
 IT 845960-10-3P 845960-11-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (regioselective preparation of benzimidazoles via amination of fluoronitrobenzenes with amines followed by reductive cyclization with aldehydes)  
 RN 845960-10-3 CAPLUS  
 CN 1H-Benzimidazole, 1-(3-chlorophenyl)-2-(3-methylphenyl)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L3 ANSWER 6 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 845960-11-4 CAPLUS  
 CN Benzenamine,  
 4-[2-(4-methoxyphenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



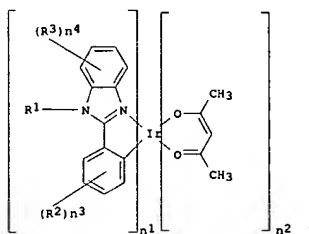
REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS  
 FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

L3 ANSWER 7 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:1079756 CAPLUS  
 DOCUMENT NUMBER: 142:45518  
 TITLE: Organic electroluminescent material, organic electroluminescent device, and heterocycle-containing iridium complex compound  
 INVENTOR(S): Takada, Ichinori; Ishibashi, Tadashi; Yamada, Jiro; Tamura, Shinichiro  
 PATENT ASSIGNEE(S): Sony Corporation, Japan  
 SOURCE: Eur. Pat. Appl., 21 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1486552	A1	20041215	EP 2004-13470	20040608
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,				
HR JP 2005002053	A2	20050106	JP 2003-167828	20030612
US 2005008895	A1	20050113	US 2004-864112	20040608
CN 1618926	A	20050525	CN 2004-10083270	20040614
PRIORITY APPLN. INFO.:			JP 2003-167828	A 20030612

OTHER SOURCE(S): MARPAT 142:45518  
 GI

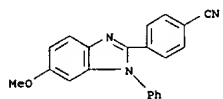


AB Heterocycle-containing iridium complex compds. are described by the general formula I (R1 = lower alkyl or (un)substituted Ph group; R2 and R3 = independently selected alkyl, alkyloxy, and cyano groups; either n1 = 2

L3 ANSWER 7 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 and n2 = 1 or n1 = 3 and n2 = 0; and n3 = 0-4; and n4 = 0-4). Org. electroluminescent materials comprising the compds. and devices employing them are also described.

IT 807610-03-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (heterocycle-containing iridium complexes and electroluminescent materials comprising them and electroluminescent device devices using the materials)

RN 807610-03-3 CAPLUS  
 CN Benzonitrile, 4-(6-methoxy-1-phenyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
 FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

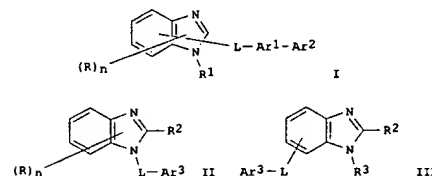
L3 ANSWER 8 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:780674 CAPLUS  
 DOCUMENT NUMBER: 141:303998  
 TITLE: Preparation of nitrogen-containing heterocycle derivative and organic electroluminescent element using the same  
 INVENTOR(S): Yamamoto, Hiroshi; Matsuura, Masahide; Kubota, Mineyuki; Kawamura, Masahito  
 PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 81 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004080975	A1	20040923	WO 2004-JP682	20040127
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,				

TG EP 1602648 A1 20051207 EP 2004-705503 20040127  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
 PRIORITY APPLN. INFO.: JP 2003-67847 A 20030313  
 WO 2004-JP682 W 20040127

OTHER SOURCE(S): MARPAT 141:303998  
 GI



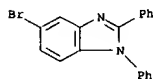
AB Novel benzimidazole derivs. [I, II, or III: R, R2, R3 = H, (un)substituted

L3 ANSWER 8 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 C6-60 aryl, pyridyl, quinolyl, C1-20 alkyl, or C1-20 alkoxy; n = 0-4; R1 = (un)substituted C6-60 aryl, pyridyl, quinolyl, C1-20 alkyl, or C1-20 alkoxy; L = (un)substituted C6-60 arylene, pyridinylene, quinolinylene, or fluorenylene; Ar1 = (un)substituted C6-60 arylene, pyridinylene, or quinolinylene; Ar2 = groups listed in R1; Ar3 = groups listed in R1, -Ar1-Ar2, wherein Ar1 and Ar2 are defined above] are prepd. Also disclosed are a material for an org. electroluminescent (EL) element comprising the nitrogen-contg. heterocycle deriv., and an org. EL element having one pair of electrodes and, sandwiched between them, at least one org. compd. layer including a luminous layer, characterized in that the at least one org. compd. layer comprises the above nitrogen-contg. heterocycle deriv. The novel nitrogen-contg. heterocycle derivs. are useful as a component of an org. EL element which is capable of exhibiting high luminous brightness and high luminous efficiency with a low electron voltage. Thus, 5-bromo-1,2-diphenyl-1H-benzimidazole was coupled with [10-(naphthalen-2-yl)anthracen-9-yl]boronic acid in the presence of tetrakis(triphenylphosphine)palladium in a mixt. of 1,2-dimethoxyethane and 2.0 M aq. Na2CO3 soln. under refluxing for 8 h to give 49% 1,2-diphenyl-5-[10-(naphthalen-2-yl)anthracen-9-yl]-1H-benzimidazole (II).

(II). An electroluminescent device with an electron-injection layer contg. II showed blue luminescence with luminance of 1,150 nit and luminous efficiency of 7.28 cd/A at 5.75 V.

IT 760212-55-3P, 5-Bromo-1,2-diphenyl-1H-benzimidazole  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of nitrogen-containing heterocycle derivative and organic electroluminescent elements using them)

RN 760212-55-3 CAPLUS  
 CN 1H-Benzimidazole, 5-bromo-1,2-diphenyl- (9CI) (CA INDEX NAME)



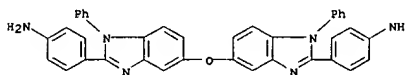
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L3 ANSWER 9 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:703557 CAPLUS  
 DOCUMENT NUMBER: 142:392744  
 TITLE: Synthesis and properties of polyorganosilazasiloxo-heteroarylenes containing diphenyl oxide and benzimidazole fragments  
 AUTHOR(S): Kezherashvili, M.; Asatiani, L.; Butskhrikidze, B.; Khurtsilava, I.; Muselliani, T.  
 CORPORATE SOURCE: Georgia  
 SOURCE: Sakartvelos Mecnierebata Akademii Macne, Kimiis Seria  
 (2004), 30(1-2), 67-72  
 CODEN: IANKEJ  
 PROIZVODSTVENNO-IZDATEL'SKOE Ob'edinenie

PUBLISHER: "Metsniereba"  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Georgian  
 AB By using condensation polymerization, new silazane organosilicon polymers were synthesized from cyclotrisilazane and bis(benzimidazole) oxide-based bisphenol. The mechanism of the reaction has been formulated based on kinetic data. The thermooxidative stability of the new polymers has been studied.

IT 849738-72-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (monomer synthesis; synthesis and characterization of oxybis(benzimidazole)-containing polysilazane-polysiloxanes based on a new bisphenol)

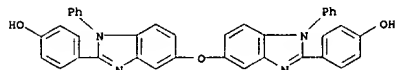
RN 849738-72-3 CAPLUS  
 CN Benzenamine, 4,4'-[oxybis(1-phenyl-1H-benzimidazole-5,2-diyl)]bis- (9CI) (CA INDEX NAME)



IT 849738-73-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (monomer; synthesis and characterization of oxybis(benzimidazole)-containing polysilazane-polysiloxanes based on a new bisphenol)

RN 849738-73-4 CAPLUS  
 CN Phenol, 4,4'-[oxybis(1-phenyl-1H-benzimidazole-5,2-diyl)]bis- (9CI) (CA INDEX NAME)

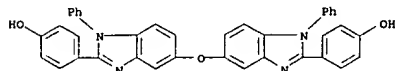
L3 ANSWER 9 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



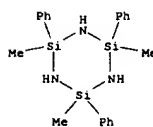
IT 849738-74-5P 849738-75-6P 849738-76-7P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis and characterization of oxybis(benzimidazole)-containing polysilazane-polysiloxanes based on a new bisphenol)

RN 849738-74-5 CAPLUS  
 CN Phenol, 4,4'-[oxybis(1-phenyl-1H-benzimidazole-5,2-diyl)]bis-, polymer with 2,4,6-trimethyl-2,4,6-triphenylcyclotrisilazane (9CI) (CA INDEX NAME)

CM 1  
 CRN 849738-73-4  
 CMF C38 H26 N4 O3



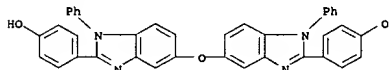
CM 2  
 CRN 4222-38-2  
 CMF C21 H27 N3 S13



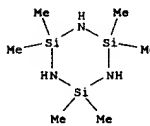
RN 849738-75-6 CAPLUS  
 CN Phenol, 4,4'-[oxybis(1-phenyl-1H-benzimidazole-5,2-diyl)]bis-, polymer with 2,2,4,4,6,6-hexamethylcyclotrisilazane (9CI) (CA INDEX NAME)

CM 1  
 CRN 849738-73-4  
 CMF C38 H26 N4 O3

L3 ANSWER 9 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

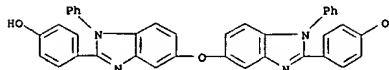


CM 2  
 CRN 1009-93-4  
 CMF C6 H21 N3 S13



RN 849738-76-7 CAPLUS  
 CN Phenol, 4,4'-[oxybis(1-phenyl-1H-benzimidazole-5,2-diyl)]bis-, polymer with 2,4,6-triethenyl-2,4,6-trimethylcyclotrisilazane (9CI) (CA INDEX NAME)

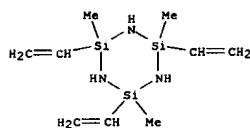
CM 1  
 CRN 849738-73-4  
 CMF C38 H26 N4 O3



CM 2  
 CRN 5505-72-6  
 CMF C9 H21 N3 S13



L3 ANSWER 9 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L3 ANSWER 10 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:836829 CAPLUS  
 DOCUMENT NUMBER: 139:323519  
 TITLE: Preparation of imidazoarenes as prostaglandin E2 subtype EP4 receptor antagonists for treatment of IL-6 involved diseases  
 INVENTOR(S): Shimojo, Masato; Taniguchi, Kana  
 PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.  
 SOURCE: PCT Int. Appl., 427 pp.  
 CODEN: FIKX02  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003086371	A2	20031023	WO 2003-1B1310	20030403
WO 2003086371	A3	20040603		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG CA 2481535 AA 20031023 CA 2003-2481535 20030403 AU 2003214525 A1 20031027 AU 2003-214525 20030403 EP 1499305 A2 20050126 EP 2003-710104 20030403 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MN, CY, AL, TR, BG, CZ, EE, HU, SK BR 2003009200 A 20050222 BR 2003-9200 20030403 CN 1658847 A 20050824 CN 2003-813401 20030403 JP 2005533756 T2 20051110 JP 2003-583392 20030403 US 2003212620 A1 20031225 US 2003-411491 20030410 NO 2004004462 A 20050111 NO 2004-4462 20041020 PRIORITY APPL. INFO.: US 2002-372364P P 20020412 WO 2003-1B1310 W 20030403				

OTHER SOURCE(S): MARPAT 139:323519  
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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The present invention relates to the use of a prostaglandin E2 (PGE2) subtype EP4 receptor ligand in the manufacture of a medicament for the treatment of interleukin 6 (IL-6) involved diseases, such as aic. cirrhosis, amyloidosis, atherosclerosis, cardiac disease, sclerosis, and

L3 ANSWER 10 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

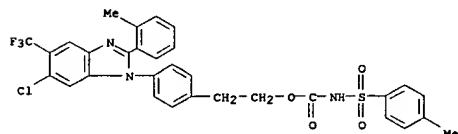
organ transplantation reactions (no data). The invention also relates to the assay which comprises culturing peripheral whole blood with a test compd. and detg. the effect of the compd. on PGE2-induced whole blood cells activation. Three hundred eighty title compds. I [wherein Y1-Y4 = N, CH, CL; R1 = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, pyrrolidinyl, amino, etc.; A = (un)substituted 5-6 membered (un)substituted monocyclic (hetero)arom. ring; B = halo-substituted alkylene, cycloalkylene, alkenylene, alkynylene, alkyleneoxy, etc., optionally substituted with an oxo or alkyl group; W = amino, O, S, bond, etc.; R2 = H, OH, alkyl, alkoxy; Z = 5-12 membered (un)substituted monocyclic or bicyclic (hetero)aryl; L = halo, alkyl, haloalkyl, OH, alkoxy, haloalkoxy, alkylthio, NO2, amino, etc.] were prepd. Thus, cycloaddn. of

2-[4-[(3-amino-4,6-dimethyl-2-pyridinyl)aminophenyl]ethanol (4-step prepn. given) with propionyl chloride in toluene provided 2-[4-[(2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridin-3-yl)phenyl]ethyl]propanoate, which was treated with aq. LiOH to give the ethanol deriv. (86%). Chlorination (90%) using thionyl chloride, conversion to the azide (85%), and Pd/C catalyzed hydrogenation afforded the amine (94%). Coupling of the amine with p-toluenesulfonyl isocyanate in CH2Cl2 gave II (56%). The latter significantly inhibited IL-6 secretion by PGE2 in ConA-stimulated human peripheral blood mononuclear cells (PBMC).

IT 415906-84-2P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of imidazoarene prostaglandin EP4 receptor antagonists for treatment of IL-6 involved diseases)

RN 415906-84-2 CAPLUS  
 CN Carbanic acid, [(4-methylphenyl)sulfonyl]-, 2-[4-[6-chloro-2-(2-methylphenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]phenyl]ethyl ester (9CI) (CA INDEX NAME)



IT 415913-33-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of imidazoarene prostaglandin EP4 receptor antagonists for treatment of IL-6 involved diseases)

RN 415913-33-6 CAPLUS  
 CN Benzeneethanol, 4-[6-chloro-2-(2-methylphenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]- (9CI) (CA INDEX NAME)

L3 ANSWER 11 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:656762 CAPLUS  
 DOCUMENT NUMBER: 139:197483  
 TITLE: Preparation of 1-phenyl-2-heteroarylbenzimidazoles  
 for  
 use in the treatment of immunological diseases  
 INVENTOR(S): Blume, Thorsten; Halfbrodt, Wolfgang; Kuhnke, Joachim;  
 Moenning, Ursula; Elger, Bernd; Schneider, Herbert  
 PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 65 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068766	A1	20030821	WO 2003-EP462	20030117
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10207844	A1	20030904	DE 2002-10207844	20020215
CA 2475780	AA	20030821	CA 2003-2475780	20030117
AU 2003205624	A1	20030904	AU 2003-205624	20030117
EP 1474415	A1	20041110	EP 2003-702464	20030117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003007723	A	20050125	BR 2003-7723	20030117
CN 1633429	A	20050629	CN 2003-803997	20030117
JP 2005521686	T2	20050721	JP 2003-567893	20030117
US 2003229085	A1	20031211	US 2003-366688	20030214
US 6962932	B2	20051108		
NO 2004003841	A	20041112	NO 2004-3841	20040914
ZA 2004007381	A	20050914	ZA 2004-7381	20040914
US 2005267160	A1	20051201	US 2005-198098	20050804
PRIORITY APPLN. INFO.:			DE 2002-10207844	A 20020215
			US 2002-357834P	P 20020221
			WO 2003-EP462	W 20030117
			US 2003-366688	A1 20030214

OTHER SOURCE(S): MARPAT 139:197483  
 GI

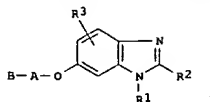
L3 ANSWER 12 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:656577 CAPLUS  
 DOCUMENT NUMBER: 139:173799  
 TITLE: Microglia inhibitors for interrupting immune reactions  
 induced by interleukin 12 and interferon  $\gamma$   
 INVENTOR(S): Blume, Thorsten; Docke, Wolf-Dietrich; Halfbrodt, Wolfgang; Kuhnke, Joachim; Moenning, Ursula; Elger, Bernd; Schneider, Herbert  
 PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 48 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068225	A1	20030821	WO 2003-EP467	20030117
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10207843	A1	20030904	DE 2002-10207843	20020215
CA 2475770	AA	20030821	CA 2003-2475770	20030117
AU 2003245523	A1	20030904	AU 2003-245523	20030117
EP 1474138	A1	20041110	EP 2003-739380	20030117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003007706	A	20050111	BR 2003-7706	20030117
JP 2005522447	T2	20050728	JP 2003-567407	20030117
CN 1756546	A	20060405	CN 2003-803992	20030117
US 2004006117	A1	20040108	US 2003-366703	20030214
NO 2004003840	A	20041112	NO 2004-3840	20040914
ZA 2004007382	A	20050914	ZA 2004-7382	20040914
PRIORITY APPLN. INFO.:			DE 2002-10207843	A 20020215
			US 2002-357833P	P 20020221
			WO 2003-EP467	W 20030117

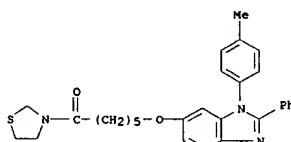
OTHER SOURCE(S): MARPAT 139:173799

AB The invention discloses the use of microglia inhibitors for producing medicaments that inhibit the monocyte-, macrophage-, and T-cell-induced immune reactions, as well as their use for treating T cell-induced immunol. diseases and inflammatory reactions that are not T-cell-induced. The microglia inhibitors of the invention include benzimidazole derivs.  
 IT 350231-85-5 350231-86-6  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (microglia inhibitors for interrupting immune reactions induced by interleukin 12 and interferon  $\gamma$ )  
 RN 350231-85-5 CAPLUS

L3 ANSWER 11 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

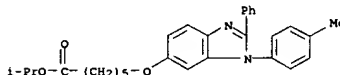


AB Title compds. I (R1 = (un)substituted Ph; R2 = (un)substituted mono- or bicyclic heterocyclic; R3 = H, OH, alkoxy; A = (un)substituted alkylene;  
 B = CO2H, (un)substituted CONH2, CONHNH2) were prepared for use in the treatment and prophylaxis of diseases that are associated with microglial activation, and of T-cell mediated immunol. diseases (no data). Thus, 3,4-[P(OMe)2]C6H3OH was treated with 4-MeC6H4NH2 to give 4-MeC6H4NHC6H3(OH)2, which was treated with Br(CH2)5CO2Me to give 4-MeC6H4NHC6H3(OH)2Br(CH2)5CO2Me-2,5. This ester was cyclized with nicotinaldehyde and hydrolyzed to give I (R1 = 4-MeC6H4, R2 = 3-pyridyl, R3 = H, AB = (CH2)5CO2H).  
 IT 582310-61-0P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of 1-phenyl-2-heteroarylbenzimidazoles for use in the treatment of immunol. diseases)  
 RN 582310-61-0 CAPLUS  
 CN Thiazolidine,  
 3-[6-[(1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl)oxy]-1-oxohexyl]- (9CI) (CA INDEX NAME)

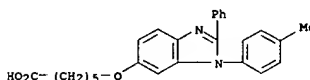


REFERENCE COUNT: 1. THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L3 ANSWER 12 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CN Hexanoic acid,  
 6-[[1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-,  
 1-methylethyl ester (9CI) (CA INDEX NAME)

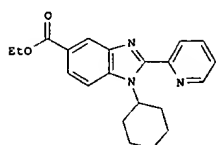


RN 350231-86-6 CAPLUS  
 CN Hexanoic acid, 6-[[1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



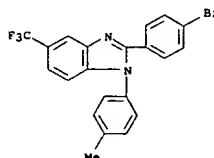
REFERENCE COUNT: 4. THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
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L3 ANSWER 13 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:651909 CAPLUS  
 DOCUMENT NUMBER: 140:42085  
 TITLE: A practical oxone-mediated, high-throughput, solution-phase synthesis of benzimidazoles from 1,2-phenylenediamines and aldehydes and its application to preparative scale synthesis  
 AUTHOR(S): Elisabeth  
 CORPORATE SOURCE: Research and Development, Boehringer Ingelheim (Canada) Ltd., Laval, QC, H7S 2G5, Can.  
 SOURCE: Synthesis (2003), (11), 1683-1692  
 CODEN: SYNTBF; ISSN: 0039-7881  
 PUBLISHER: Georg Thieme Verlag  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 140:42085  
 GI

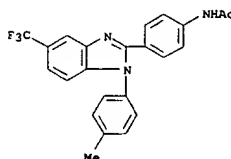


AB Addition of oxone to a mixture of a 1,2-phenylenediamine and an aldehyde gave benzimidazoles, e.g., I, under mild conditions. The reaction was applicable to a wide range of substrates including aliphatic, aromatic, and heteroarom. aldehydes, and was not significantly affected by steric or electronic effects. In most cases, crude products are isolated in good to excellent yields and homogeneities by simple precipitation or extraction from the reaction mixture and did not require addnl. purification. Limitations to the scope of this methodol. were encountered in cases where aldehydes were sensitive to oxone under the acidic reaction conditions. The features of this methodol. make it particularly well suited for the high-throughput, solution-phase synthesis of benzimidazole libraries. The low cost and simplicity of this procedure makes it equally attractive for preparative-scale syntheses where safety and environmental issues are of greater concern.  
 IT 637041-79-39 637041-80-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of benzimidazoles via amination of nitroaryl chlorides with

L3 ANSWER 13 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 primary amines followed by reduct. and oxone-mediated heterocyclization with aldehydes)  
 RN 637041-79-3 CAPLUS  
 CN 1H-Benzimidazole,  
 2-(4-bromophenyl)-1-(4-methylphenyl)-5-(trifluoromethyl)-  
 (9CI) (CA INDEX NAME)



RN 637041-80-6 CAPLUS  
 CN Acetamide,  
 N-[4-[1-(4-methylphenyl)-5-(trifluoromethyl)-1H-benzimidazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)



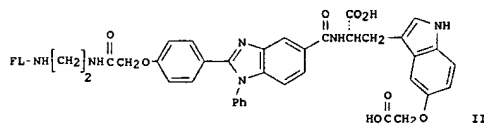
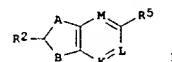
REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L3 ANSWER 14 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:133484 CAPLUS  
 DOCUMENT NUMBER: 138:165718  
 TITLE: Probes for direct binding assay for identifying inhibitors of hepatitis C virus RNA-dependent RNA polymerase  
 INVENTOR(S): Kukulj, George; Beaulieu, Pierre L.; McKercher, Ginette  
 PATENT ASSIGNEE(S): Boehringer Ingelheim (Canada) Ltd., Can.  
 SOURCE: PCT Int. Appl., 125 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003014377	A2	20030220	WO 2002-CA1214	20020805
WO 2003014377	A3	20031218		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003108862	A1	20030612	US 2002-211455	20020802
CA 2450142	A2	20030220	CA 2002-2450142	20020805
EP 1417493	A2	20040512	EP 2002-753998	20020805
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005500055	T2	20050106	JP 2003-519506	20020805
PRIORITY APPLN. INFO.: US 2001-310272P P 20010807				
WO 2002-CA1214 W 20020805				

OTHER SOURCE(S): MARPAT 138:165718  
 GI

L3 ANSWER 14 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



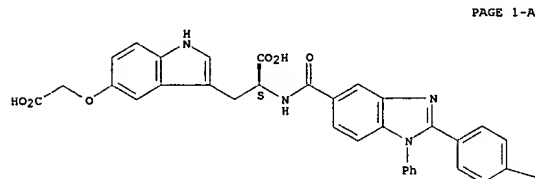
AB A method for identifying compds. binding to hepatitis C virus (HCV) RNA-dependent RNA polymerase is provided. HCV polymerase or an analog is contacted with a probe formula I, wherein A is O, S, N, NR1, or CR1, wherein R1 is defined as either a single or a double bond; R2 is selected from H, halogen, R21, OR21, SR21, COOR21, SO2N(R22)2, N(R22)2, CON(R22)2, NR22C(O)R22 or NR22C(O)NR22, wherein R21 and each R22 is defined herein;  
 B is NR3 or CR3, wherein R3 is defined herein; with the proviso that, when  
 A is not N, then one of A or B is either CR1 or CR3, K is N or CR4, wherein R4 is defined herein; L is N or CR5, wherein R5 has the same definition as R4 defined above; M is N or CR7, wherein R7 has the same definition as R4 defined above; R6 is C(Y1)Z wherein Y1 is O or S; and Z is N(R6a)R6 or  
 OR6, wherein R6a is H or alkyl or NR61R62 wherein R61 and R62 are defined herein; and R6 is H, alkyl, cycloalkyl, alkenyl, Het, alkyl-aryl, alkyl-Het; or R6 is wherein R7 and R8 and Q are as defined herein; Y2 is O or S; R9 is H, (C1-6 alkyl), (C3-7)cycloalkyl or (C1-6)alkyl-(C3-7)cycloalkyl, aryl, Het, (C1-6)alkyl-aryl or (C1-6)alkyl-Het, all of which optionally substituted with R90; or R9 is covalently bonded to either of R7 or R8 to form a 5- or 6-membered heterocycle; or a salt thereof; where the probe comprises a detectable label attached to any suitable position, whereby said probe binds to an HCV polymerase or an analog thereof and is capable of being displaced by an inhibitor thereof. The association of a specific probe with the HCV NS5B polymerase can be monitored and quantified directly by a change in the intrinsic spectral properties of a tagged or un-tagged NS5B protein and/or by a change in the intrinsic spectral properties of a specific probe. A direct measurement of inhibitor-NS5B association can also be achieved by immobilizing one of these two components on a matrix and measuring association through plasma-resonance detection technol. An assay that quantifies probe-NS5B complex association

L3 ANSWER 14 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 may also incorporate a photo-reactive label (such as phenyl-azide or benzophenone) on the probe and measure the amt. of label irreversibly bound to the NS5B adduct following photo-activation of the probe. Thus, titrn. of fluorescein-labeled probe II (FL = 5-thiocarbonylamino fluorescein) with the enzyme was measured with excitation wavelength at 493 nm and emission monitored at 530 nm, indicating a Kd value of 6 nM, which is  $\geq 100$ -fold higher for HCV polymerase than obtained with the GBV-B polymerase. A major advantage of the direct binding assay is that different affinities for the primer/template RNA substrate with N-terminal tag His-NS5B $\Delta$ 21 and C-terminal tag NS5B $\Delta$ 21-His are reconciled by relatively similar Kd values that individual inhibitors display with the two different HCV polymerases.

IT 497844-93-6P 497844-94-7P 497844-95-8P  
 497844-96-9P 497844-97-0P 497844-98-1P  
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)  
 (probes for direct binding assay for identifying inhibitors of hepatitis C virus RNA-dependent RNA polymerase)

RN 497844-93-6 CAPLUS  
 CN L-Tryptophan, 5-(carboxymethoxy)-N-[[2-[4-[[2-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-5-yl]amino]thioxomethyl]amino]ethyl]amino]carbonyl]phenyl]-1-phenyl-1H-benzimidazol-5-yl]carbonyl]- (9CI) (CA INDEX NAME)

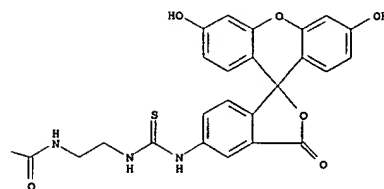
Absolute stereochemistry.



PAGE 1-A

L3 ANSWER 14 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

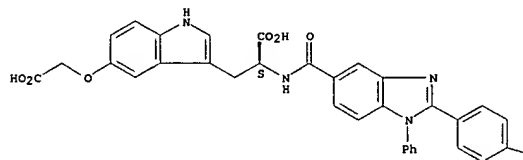
PAGE 1-B



RN 497844-94-7 CAPLUS  
 CN L-Tryptophan, 5-(carboxymethoxy)-N-[[2-[4-[[2-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H), 9'-[9H]xanthen]-5-yl]amino]thioxomethyl]amino]ethyl]amino]-2-oxoethoxy]phenyl]-1-phenyl-1H-benzimidazol-5-yl]carbonyl]- (9CI) (CA INDEX NAME)

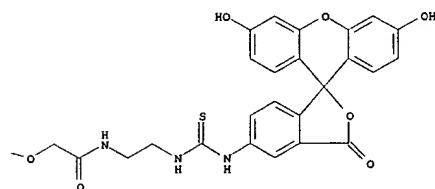
Absolute stereochemistry.

PAGE 1-B



L3 ANSWER 14 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

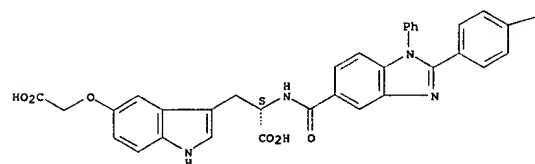
PAGE 1-B



RN 497844-95-8 CAPLUS  
 CN L-Tryptophan, 5-(carboxymethoxy)-N-[[2-[4-[[2-[[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]amino]ethyl]amino]-2-oxoethoxy]phenyl]-1-phenyl-1H-benzimidazol-5-yl]carbonyl]- (9CI) (CA INDEX NAME)

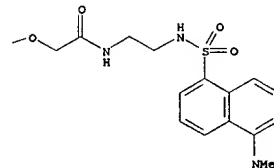
Absolute stereochemistry.

PAGE 1-A



L3 ANSWER 14 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

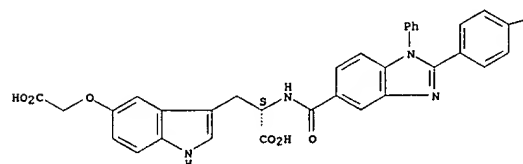
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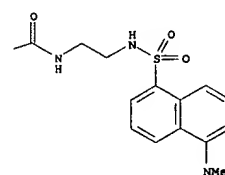
RN 497844-96-9 CAPLUS  
 CN L-Tryptophan, 5-(carboxymethoxy)-N-[[2-[4-[[2-[[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]amino]ethyl]amino]carbonyl]phenyl]-1-phenyl-1H-benzimidazol-5-yl]carbonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

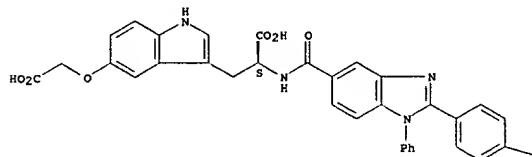


L3 ANSWER 14 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

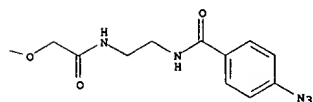
RN 497844-97-0 CAPLUS  
 CH L-Tryptophan, N-[[2-[[4-[[2-[[4-azidobenzoyl]amino]ethyl]amino]-2-oxoethoxy]phenyl]-1-phenyl-1H-benzimidazol-5-yl]carbonyl]-5-(carboxymethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

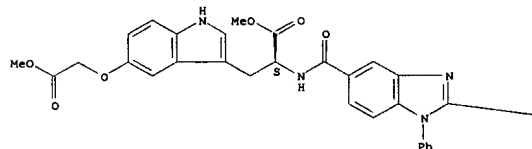


RN 497844-98-1 CAPLUS  
 CN L-Tryptophan, N-[[2-[[4-[[2-[[4-benzoylbenzoyl]amino]ethyl]amino]-2-oxoethoxy]phenyl]-1-phenyl-1H-benzimidazol-5-yl]carbonyl]-5-(carboxymethoxy)- (9CI) (CA INDEX NAME)

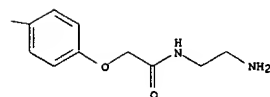
Absolute stereochemistry.

L3 ANSWER 14 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B



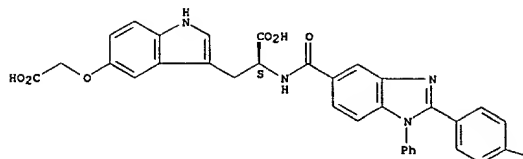
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CRN 76-05-1  
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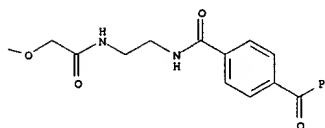


L3 ANSWER 14 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B



IT 497845-01-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (probes for direct binding assay for identifying inhibitors of hepatitis C virus RNA-dependent RNA polymerase)  
 RN 497845-01-9 CAPLUS  
 CN L-Tryptophan, N-[[2-[[4-[[2-[[2-aminoethyl]amino]-2-oxoethoxy]phenyl]-1-phenyl-1H-benzimidazol-5-yl]carbonyl]-5-(2-methoxy-2-oxoethoxy)-, methyl ester, bis(trifluoroacetate) (9CI) (CA INDEX NAME)

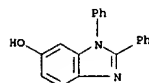
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CRN 497845-00-8  
 CMF C39 H38 N6 O8

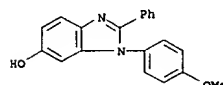
Absolute stereochemistry.

L3 ANSWER 15 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:855869 CAPLUS  
 DOCUMENT NUMBER: 139:179987  
 TITLE: Product class 4: benzimidazoles  
 AUTHOR(S): Grimmett, M. R.  
 CORPORATE SOURCE: Organic Chemistry, Dept. of Chemistry, University of Otago, Dunedin, N. Z.  
 SOURCE: Science of Synthesis (2002), 12, 529-612  
 CODEN: SSCYJ9  
 PUBLISHER: Georg Thieme Verlag  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: English  
 AB A review. Methods for preparing benzimidazoles are reviewed covering annulations to arenes, ring transformations, and aromatization. Modification of benzimidazole substituents are also included.  
 IT 117125-04-9P 117125-06-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (review of preparation of benzimidazoles via cyclization, ring transformations, aromatization and modification of substituents)  
 RN 117125-04-9 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1,2-diphenyl- (9CI) (CA INDEX NAME)

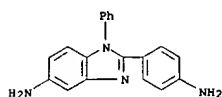


RN 117125-06-1 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(4-methoxyphenyl)-2-phenyl- (9CI) (CA INDEX NAME)



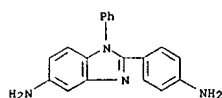
REFERENCE COUNT: 497 THERE ARE 497 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 16 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:843291 CAPLUS  
 DOCUMENT NUMBER: 139:157255  
 TITLE: New photosensitive polyimide composites for optical technologies  
 AUTHOR(S): Aleksandrova, E. L.; Nosova, G. I.; Romashkova, K. A.; Galaktionova, E. F.; Yurre, T. A.; Kudryavtsev, V. V.; Rudaya, L. I.; Klimova, N. V.  
 CORPORATE SOURCE: S. I. Vavilov State Optical Institute, St. Petersburg,  
 SOURCE: Russia  
 Journal of Optical Technology (Translation of Opticheskii Zhurnal) (2002), 69(10), 706-710  
 CODEN: JOTEE4; ISSN: 1070-9762  
 PUBLISHER: Optical Society of America  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB An electrophotog. method has been used to study the photocond. in layers of new thermally stable soluble polyimides (PIs) distinguished by the structure of the donor benzimidazole and acceptor diimide fragments of the polymer chains and its sensitization by tetranitrofluorenone and by various classes of dyes. It is shown that the synthesized polymers possess intrinsic photosensitivity at a level of  $3 \times 10^3$ - $10^4$  cm<sup>2</sup>/J in the spectral region up to 450 nm. The photosensitivity achieved for the sensitized PIs ( $3 \times 10^5$ - $2 \times 10^4$  cm<sup>2</sup>/J in the spectral region 400-700 nm) shows that the synthesized PI materials are promising for creating recording media and liquid-crystal modulators.  
 IT 569674-44-BP 569674-47-1P 569674-48-2P  
 569674-49-3P 569674-50-6P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (electrophotog. conductivity and photosensitivity of polyimide composites)  
 RN 569674-44-8 CAPLUS  
 CN 1,3-Isobenzofurandione, 5,5'-oxybis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 57842-33-8  
 CMF C19 H16 N4



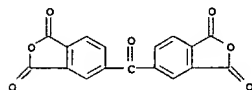
CM 2

L3 ANSWER 16 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CM 1  
 CRN 57842-33-8  
 CMF C19 H16 N4

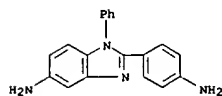


CM 2

CRN 2421-28-5  
 CMF C17 H6 O7



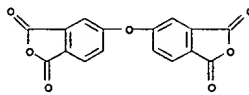
RN 569674-49-3 CAPLUS  
 CN 1,3-Isobenzofurandione, 5,5'-sulfonylbis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 57842-33-8  
 CMF C19 H16 N4



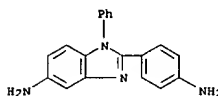
CM 2

CRN 2540-99-0  
 CMF C16 H6 O8 S

L3 ANSWER 16 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CRN 1823-59-2  
 CMF C16 H6 O7

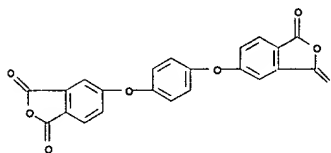


RN 569674-47-1 CAPLUS  
 CN 1,3-Isobenzofurandione, 5,5'-(1,4-phenylenebis(oxy))bis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 57842-33-8  
 CMF C19 H16 N4



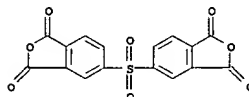
CM 2

CRN 17828-53-4  
 CMF C22 H10 O8



RN 569674-48-2 CAPLUS  
 CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)

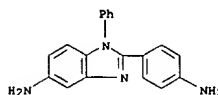
L3 ANSWER 16 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 569674-50-6 CAPLUS  
 CN 1,3-Isobenzofurandione, 5,5'-(2,2,2-trifluoro-1-(trifluoromethyl)ethylidene)bis-, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-5-amine (9CI) (CA INDEX NAME)

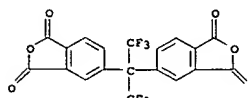
CM 1

CRN 57842-33-8  
 CMF C19 H16 N4



CM 2

CRN 1107-00-2  
 CMF C19 H6 F6 O6

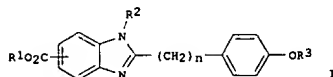


REFERENCE COUNT: 15  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L3 ANSWER 17 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:513078 CAPLUS  
 DOCUMENT NUMBER: 137:73258  
 TITLE: Benzimidazoles and VEGF receptor antagonists containing them  
 INVENTOR(S): Wada, Hisaya; Asanuma, Hajime; Takayama, Tetsuo; Sato,  
 Masakazu; Yamagishi, Takehiro; Shibuya, Masashi  
 PATENT ASSIGNEE(S): Taisho Pharmaceutical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKO0AF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002193947	A2	20020710	JP 2000-395417	20001226
PRIORITY APPLN. INFO.:			JP 2000-395417	20001226

OTHER SOURCE(S): MARPAT 137:73258  
 GI



AB Vascular endothelial growth factor receptor antagonists contain benzimidazoles I (R1 = H, C1-6 alkyl; R2 = H, C6H4CO2R4; R4 = H, C1-6 alkyl; n = 0-2) or their salts. M-H2NC6H4CO2EC was condensed with 4,3-F(102N)C6H3CO2Me, reduced amidated by p-C18H37OC6H4CH2CH2CO2H, and cyclized to give I (R1 = H, R2 = m-C6H4CO2H, R3 = C18H37, n = 2), which

in vitro inhibited binding of VEGF with IC50 of 0.53 μM.

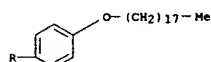
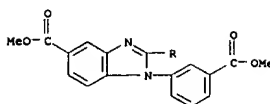
IT 440362-29-8P 440362-32-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

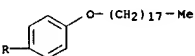
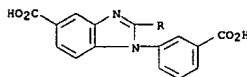
(preparation of benzimidazoles as VEGF receptor antagonists)

RN 440362-29-8 CAPLUS  
 CN 1H-Benzimidazole-5-carboxylic acid, 1-[3-(methoxycarbonyl)phenyl]-2-[4-(octadecyloxy)phenyl]-, methyl ester (9CI) (CA INDEX NAME)

L3 ANSWER 17 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 440362-32-3 CAPLUS  
 CN 1H-Benzimidazole-5-carboxylic acid, 1-(3-carboxyphenyl)-2-[4-(octadecyloxy)phenyl]- (9CI) (CA INDEX NAME)



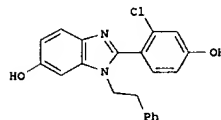
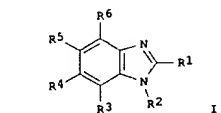
L3 ANSWER 18 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:449659 CAPLUS  
 DOCUMENT NUMBER: 137:47196  
 TITLE: Preparation of benzimidazoles as selective estrogen receptor-β ligand  
 INVENTOR(S): Barlaam, Bernard; Dock, Steven; Folmer, James  
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.  
 SOURCE: PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046168	A1	20020613	WO 2001-SE2725	20011207
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,			

TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GN, GO, GW, ML, MR, NE, SN, TD, TG  
 AU 2002021239 A5 20020618 AU 2002-21239 20011207  
 EP 1341768 A1 20030910 EP 2001-999562 20011207  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2004515496 T2 20040527 JP 2002-547907 20011207  
 PRIORITY APPLN. INFO.: US 2000-251773P P 20001207  
 US 2000-251776P P 20001207  
 SE 2001-8 A 20010102  
 SE 2001-9 A 20010102  
 WO 2001-SE2725 W 20011207

OTHER SOURCE(S): MARPAT 137:47196  
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L3 ANSWER 18 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

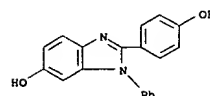


AB Title compds. I (R1 = (un)substituted alkyl, Ph, benzyl; R2 = H, (un)substituted alkyl, Ph(CH2)m, naphthyl(CH2)m, R7(CH2)m; R3 and R6 independently = halo, CN, nitro, (un)substituted alkyl, R8, R8O, R8S, R82N, R8O2C, R8C(=O)O, R82NCO, R8COR8N, etc.; R4 and R5 independently = halo, CN, nitro, R8, R8O, R8S, R82N, R8O2C, R8C(=O)O, R82NCO, R8COR8N, etc.; R7 = (un)substituted 5 or 6-membered heterocycle possessing 0-1 oxo groups and/or 0-1 fused benzo rings; R8 = H, alkyl, haloalkyl, Ph or benzyl; m = 0-3) are prepared and claimed with their pharmaceutically acceptable salts as selective estrogen receptor-β ligands. Thus, II was prepared by substitution of 2-fluoro-1-nitro-4-(2-trimethylsilyloxyethoxymethoxy)benzene with phenylethylamine followed by subsequent NO2 reduction, cyclocondensation with Et 2-chloro-4-hydroxybenzaldehyde and deprotection. In estrogen receptor binding assays, I demonstrated activity at 15-2000 nM and selectivity (ERβ/ERα) of 30-0.5. As selective ER-β ligands, I are useful in the treatment or prophylaxis of Alzheimer's disease, anxiety disorders, depressive disorders, osteoporosis, cardiovascular disease, rheumatoid arthritis or prostate cancer.

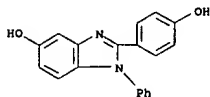
IT RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(target compound: preparation of benzimidazoles as selective estrogen receptor-β ligand via cyclocondensation of diaminobenzenes with corresponding benzimidates)

RN 436860-43-4 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 2-(4-hydroxyphenyl)-1-phenyl- (9CI) (CA INDEX NAME)

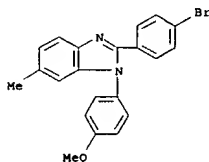


L3 ANSWER 18 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 436860-50-3 CAPLUS  
 CN 1H-Benzimidazol-5-ol, 2-(4-hydroxyphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L3 ANSWER 19 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:361401 CAPLUS  
 DOCUMENT NUMBER: 137:232591  
 TITLE: Polymer-assisted parallel solution phase synthesis of substituted benzimidazoles  
 AUTHOR(S): Yun, Young K.; Porco, John A., Jr.; Labadie, Jeff  
 CORPORATE SOURCE: Argonaut Technologies, Foster City, CA, 94404, USA  
 SOURCE: Synlett (2002), (5), 739-742  
 CODEN: SYNLES; ISSN: 0936-5214  
 PUBLISHER: Georg Thieme Verlag  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 137:232591  
 AB A small library of benzimidazoles was prepared using polymer-bound reagents and scavengers. Polymer-assisted reaction of phenylenediamines with carboxylic acids yielded o-amidophenylamines in the presence of polystyrene-carbodiimide (PS-carbodiimide) using 1-hydroxy-7-azabenzotriazole (HOAT) as additive. Excess HOAT was scavenged post-reaction using polystyrene-trisamine (PS-trisamine) resin.  
 Treatment of o-amidophenylamines with AcOH facilitated acid-catalyzed cyclodehydration to afford benzimidazoles in good yields and excellent purities.  
 IT 457867-00-49  
 RL: CPN (Combinatorial preparation); CMBI (Combinatorial study); PREP (Preparation)  
 (polymer-assisted parallel solution phase synthesis of substituted benzimidazoles)  
 RN 457867-00-4 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-bromophenyl)-1-(4-methoxyphenyl)-6-methyl- (9CI) (CA INDEX NAME)



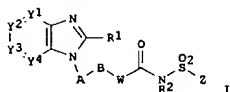
REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L3 ANSWER 20 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:314939 CAPLUS  
 DOCUMENT NUMBER: 136:340677  
 TITLE: Preparation of imidazoarenes as antiinflammatory and analgesic agents.  
 INVENTOR(S): Nakeo, Kazunari; Okumura, Yoshiyuki; Matsumizu, Miyako; Uneo, Naomi; Hashizume, Yoshinobu; Kato, Tomoki; Kawai, Akiyoshi; Miyake, Yoriko; Nukui, Seiji;  
 PATENT ASSIGNEE(S): Shinjyo, Katsuhiko; Taniguchi, Kana  
 SOURCE: Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.  
 PCT Int. Appl., 461 pp.  
 CODEN: PIXXD2  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: English  
 PATENT INFORMATION: 2

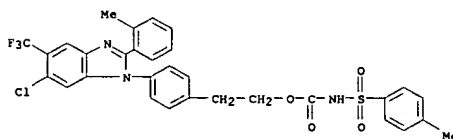
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002032900	A2	20020425	WO 2001-1B1940	20011015
WO 2002032900	A3	20020808		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2426457	A4	20020425	CA 2001-2426457	20011015
AU 2002010796	A5	20020429	AU 2002-10796	20011015
US 2002077329	A1	20020620	US 2001-977761	20011015
US 2002107273	A1	20020808	US 2001-977621	20011015
US 6710054	B2	20040323		
EP 1326864	A2	20030716	EP 2001-978702	20011015
EP 1326864	B1	20060315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EE 200300190	A	20031015	EE 2003-190	20011015
BR 2001014704	A	20040225	BR 2001-14704	20011015
JP 2004517054	T2	20040610	JP 2002-536282	20011015
NZ 525163	A	20050930	NZ 2001-525163	20011015
AT 320428	E	20060415	AT 2001-978702	20011015
BG 107699	A	20031231	BG 2003-107699	20030403
NO 2003001582	A	20030617	NO 2003-1582	20030408
ZA 2003002722	A	20040408	ZA 2003-2722	20030408
ZA 2003002591	A	20040416	ZA 2003-2591	20030416
US 2004181059	A1	20040916	US 2004-771696	20040204
PRIORITY APPL. INFO.:			US 2000-241825P	P 20001019
			US 2001-977621	A3 20011015
			WO 2001-1B1940	W 20011015

OTHER SOURCE(S): MARPAT 136:340677  
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L3 ANSWER 20 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



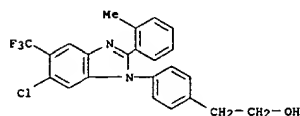
AB Title compds. (I: Y1-Y4 = N, CH, CL; R1 = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, pyrrolidinyl, amino, etc.; A = (substituted) 5-6 membered monocyclic aromatic ring optionally containing up to 3 heteroatoms selected from O, N, S, etc.; B = halo-substituted alkylene, cycloalkylene, alkenylene, alkynylene, alkyleneoxy, etc.; optionally substituted with an oxo group; W = amino, O, S, bond, etc.; R2 = H, OH, alkyl, alkoxy; Z = 5-12 membered (substituted) monocyclic or bicyclic aryl optionally containing up to 3 heteroatoms selected from O, N and S, etc.; L = halo, alkyl, haloalkyl, OH, alkoxy, haloalkoxy, alkythio, NO2, amino, etc.), were prepared as prostaglandin E2 receptor antagonists, preferably as EP4 receptor antagonists. Thus, to 2-(4-(2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridin-3-yl)phenyl)ethylamine (preparation given) in CH2Cl2 was added p-toluenesulfonyl isocyanate followed by stirring for 3 h to give 561  
 2-ethyl-5,7-dimethyl-3-[4-[2-[[[4-(4-methylphenyl)sulfonyl]amino]carbon yl]amino]ethyl]phenyl]-3H-imidazo[4,5-b]pyridine. Preferred I inhibited PGE2-induced thermal hyperalgesia in rats with ED50<60 mg/kg.  
 IT 415906-84-2P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of imidazoarene prostaglandin EP4 receptor antagonists as antiinflammatory and analgesic agents)  
 RN 415906-84-2 CAPLUS  
 CN Carbamic acid, [(4-methylphenyl)sulfonyl]-, 2-[4-[6-chloro-2-(2-methylphenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]phenyl]ethyl ester (9CI) (CA INDEX NAME)



IT 415913-33-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT



L3 ANSWER 20 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 (Reactant or reagent)  
 (prepn. of imidazoarene prostaglandin EP4 receptor antagonists as  
 antiinflammatory and analgesic agents)  
 RN 415913-33-6 CAPLUS  
 CN Benzeneethanol, 4-[6-chloro-2-(2-methylphenyl)-5-(trifluoromethyl)-1H-  
 benzimidazol-1-yl]- (9CI) (CA INDEX NAME)

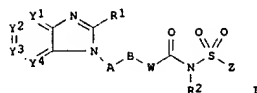


L3 ANSWER 21 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:314767 CAPLUS  
 DOCUMENT NUMBER: 136:340676  
 TITLE: Preparation of benzimidazole derivatives as  
 prostaglandin EP4 receptor inhibitors to treat  
 rheumatoid arthritis  
 INVENTOR(S): Audoly, Laurent; Okumura, Takako; Shimojo, Masato  
 PATENT ASSIGNEE(S): Pfizer Pharmaceuticals Inc., Japan; Pfizer Inc.  
 SOURCE: PCT Int. Appl., 468 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002032422	A2	20020425	WO 2001-1B1942	20011015
WO 2002032422	A3	20020725		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2426487	AA	20020425	CA 2001-2426487	20011015
AU 2001094122	A5	20020429	AU 2001-94122	20011015
US 2002077329	A1	20020620	US 2001-977761	20011015
US 2002107273	A1	20020808	US 2001-977621	20011015
US 6710054	B2	20040323		
BR 2001014758	A	20030701	BR 2001-14758	20011015
EP 1326606	A2	20030716	EP 2001-974609	20011015
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EE 200300188	A	20031015	EE 2003-188	20011015
JP 2004511518	T2	20040415	JP 2002-535660	20011015
AT 320428	E	20060415	AT 2001-978702	20011015
ZA 2003002722	A	20040408	ZA 2003-2722	20030408
NO 2003001658	A	20030610	NO 2003-1658	20030410
BG 107732	A	20040130	BG 2003-107732	20030416
ZA 2003002991	A	20040416	ZA 2003-2991	20030416
US 2004181059	A1	20040916	US 2004-771696	20040204
PRIORITY APPLN. INFO.:				
			US 2000-241825P	P 20001019
			US 2001-977621	A3 20011015
			WO 2001-1B1942	W 20011015

OTHER SOURCE(S): MARPAT 136:340676  
 GI

L3 ANSWER 21 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



AB Benzimidazole derivs. I wherein Y1-Y4 are independently N, CH, alkyl, alkoxy, haloalkyl, halo, substituted alkyl, R1 is H, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, haloalkoxy, heterocycle; R2 is H, alkyl, alkoxy, OH; A is substituted heterocycle arom ring; B is haloalkylene, cycloalkylene, alkenylene, alkynylene, oxyalkylene; W is NH, aminoalkyl, O, S, oxime, covalent bond; Z is monocyclic and bicyclic aromatic heterocycle, were prepared as prostaglandin EP4 receptor inhibitors to treat rheumatoid arthritis of rats and human. Also featured is a method of identifying agents that selectively inhibit EP4 activity in vivo. Thus,

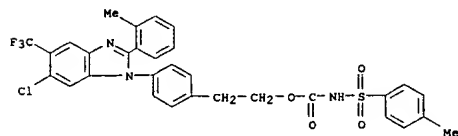
3-(4-[2](((3,4-dichlorophenyl)sulfonyl)amino)carbonyl)amino)ethyl)phenyl]-2-ethyl-5,7-dimethyl-3H-imidazo[4,5-b]pyridine, hydrochloride was prepared and tested in vivo as an agent selectively inhibiting EP4 activity or selectively binding EP4; and measuring joint inflammation, joint swelling, joint ankylosis, interleukin (IL)-6, SAA protein, and/or joint mobility.

IT 415906-84-2P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzimidazole derivs. as prostaglandin ep receptor inhibitors to treat rheumatoid arthritis)

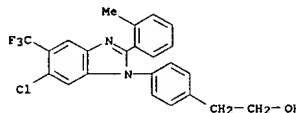
RN 415906-84-2 CAPLUS

CN Carbamic acid, [(4-methylphenyl)sulfonyl]-, 2-[4-[6-chloro-2-(2-methylphenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]phenyl]ethyl ester (9CI) (CA INDEX NAME)



IT 415913-33-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of benzimidazole derivs. as prostaglandin ep receptor inhibitors to treat rheumatoid arthritis)  
 RN 415913-33-6 CAPLUS

L3 ANSWER 21 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CN Benzeneethanol, 4-[6-chloro-2-(2-methylphenyl)-5-(trifluoromethyl)-1H-  
 benzimidazol-1-yl]- (9CI) (CA INDEX NAME)



L3 ANSWER 22 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:111104 CAPLUS  
 DOCUMENT NUMBER: 137:63709  
 TITLE: Third Harmonic Generation in Copolymer Films with Optically Nonlinear N-Substituted 4-Nitroazobenzene

in the Side and Main Polymer Chains  
 AUTHOR(S): Lebedeva, G. K.; Loretsyan, N. L.; Ivanova, V. N.; Romashkova, K. A.; Lukoshkin, V. A.; Kudryavtsev, V. V.

CORPORATE SOURCE: Institute of High-Molecular Compounds, Russian Academy of Sciences, St. Petersburg, 199004, Russia  
 SOURCE: Physics of the Solid State (Translation of Fizika Tverdogo Tela (Sankt-Peterburg)) (2002), 44(2), 395-398  
 CODEN: FSOSED; ISSN: 1063-7834

PUBLISHER: MAIK Nauka/Interperiodica Publishing  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

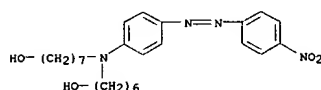
AB The third-order nonlinear optical susceptibility  $\chi(3)$  (3 $\omega$ ;  $\omega$ ,  $\omega$ ,  $\omega$ ) of two types of copolymer films containing optically nonlinear N-substituted nitroazobenzene in the side (methacrylic series copolymers) and main (copolyimidoamido esters) polymer chains is investigated using the third harmonic generation method at a wavelength

of 1.064  $\mu\text{m}$ .  
 IT 439120-20-4P 439120-22-6P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (third harmonic generation in films of copolymers containing nitroazobenzeneamine groups)

RN 439120-20-4 CAPLUS  
 CN 1H-Isindole-5-carbonyl chloride, 2-[4-(chlorocarbonyl)phenyl]-2,3-dihydro-1,3-dioxo-, polymer with 2-[4-(aminophenyl)-1-phenyl-1H-benzimidazol-6-amine and 7-[(2-hydroxyhexyl)[4-[(4-nitrophenyl)azo]phenyl]amino]-1-heptanol (9CI) (CA INDEX NAME)

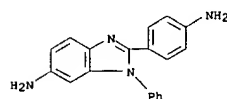
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CRN 439120-17-9  
 CMF C25 H36 N4 O4



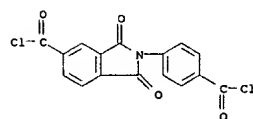
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L3 ANSWER 22 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CMF C19 H16 N4



CM 3

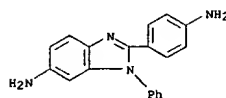
CRN 29747-29-3  
 CMF C16 H7 Cl2 N O4



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

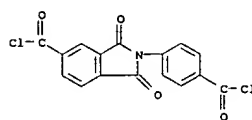
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L3 ANSWER 22 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CRN 181189-60-6  
 CMF C19 H16 N4



CM 3

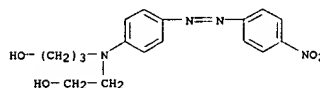
CRN 29747-29-3  
 CMF C16 H7 Cl2 N O4



RN 439120-22-6 CAPLUS  
 CN 1H-Isindole-5-carbonyl chloride, 2-[4-(chlorocarbonyl)phenyl]-2,3-dihydro-1,3-dioxo-, polymer with 2-[4-(aminophenyl)-1-phenyl-1H-benzimidazol-6-amine and 3-[(2-hydroxyethyl)[4-[(4-nitrophenyl)azo]phenyl]amino]-1-propanol (9CI) (CA INDEX NAME)

CM 1

CRN 439120-21-5  
 CMF C17 H20 N4 O4



CM 2

CRN 181189-60-6

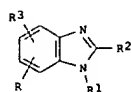
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2001:526062 CAPLUS  
 DOCUMENT NUMBER: 135:107328  
 TITLE: Preparation of 1,2-diphenylbenzimidazolealkanoates and analogs for treatment of disorders mediated by microglia activation  
 INVENTOR(S): Kuhnke, Joachim; Harkbrodt, Wolfgang; Moenning, Ursula  
 PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 141 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001051473	A1	20010719	WO 2001-EP334	20010112
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA,				
ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2396227	AA	20010719	CA 2001-2396227	20010112
BR 2001007628	A	20021008	BR 2001-7628	20010112
EP 1246808	A1	20021009	EP 2001-915133	20010112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003523961	T2	20030812	JP 2001-551855	20010112
EE 200200390	A	20031015	EE 2002-390	20010112
NZ 519326	A	20050225	NZ 2001-519326	20010112
AU 782993	B2	20050915	AU 2001-42332	20010112
US 2002006948	A1	20020117	US 2001-759360	20010116
BG 1006821	A	20030131	BG 2001-00821	20020613
NO 200203362	A	20020913	NO 2002-3362	20020712
ZA 20040219	A	20040219	ZA 2002-6470	20020813
US 2006094770	A1	20060504	US 2005-299135	20051208
PRIORITY APPLN. INFO.:			DE 2000-10002898	A 20000114
			US 2000-178324P	P 20000127
			WO 2001-EP334	W 20010112
			US 2001-759360	A3 20010116

OTHER SOURCE(S): MARPAT 135:107328  
 GI

Instant App.

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



AB Title compds. [I: R = 2Z1R4; R1,R2 = (un)substituted (hetero)aryl; R3 = H, halo, substituted alkyl, alkoxy, etc.; R4 = CO2H, alkoxycarbonyl, CONH2, SO3H, etc.; Z = O, (alkyl)imino, acylimino; Z1 = (heteroatom-interrupted) alkyl(enylene, etc.) were prepared Thus, I (R1 = R2 = Ph, R3 = H) (II;

R = 6-OH) was etherified by BrCH2CO2CHMe3 to give II (R = 6-OCH2CO2CHMe3). Data for biol. activity of I were given.

IT 350231-38-8P 350231-39-9P 350231-40-2P

350231-41-3P 350231-42-4P 350231-43-5P

350231-44-6P 350231-45-7P 350231-46-8P

350231-47-9P 350231-48-0P 350231-49-1P

350231-50-4P 350231-51-5P 350231-52-6P

350231-53-7P 350231-54-8P 350231-55-9P

350231-56-0P 350231-57-1P 350231-58-2P

350231-59-3P 350231-60-6P 350231-61-7P

350231-62-8P 350231-63-9P 350231-64-0P

350231-65-1P 350231-66-2P 350231-67-3P

350231-68-4P 350231-69-5P 350231-70-0P

350231-71-9P 350231-72-0P 350231-73-1P

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L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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350234-52-5P 350234-53-6P 350234-54-7P

350234-55-8P 350234-56-9P 350234-57-0P

350234-58-1P 350234-63-8P

RL: SAC (Biological activity or effector, except adverse); BSU

(Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prep. of 1,2-diarylbenzimidazolealkanoates and analogs for treatment

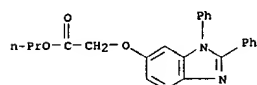
of disorders mediated by microglia activation)

RN 350231-38-8 CAPLUS

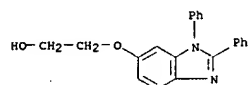
CN Acetic acid, [(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, propyl ester

(9CI) (CA INDEX NAME)

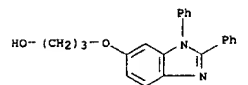
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



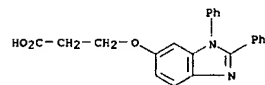
RN 350231-39-9 CAPLUS  
CN Ethanol, 2-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)



RN 350231-40-2 CAPLUS  
CN 1-Propanol, 3-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)

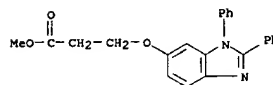


RN 350231-41-3 CAPLUS  
CN Propanoic acid, 3-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)

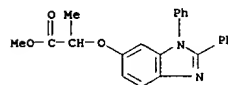


RN 350231-42-4 CAPLUS  
CN Propanoic acid, 3-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

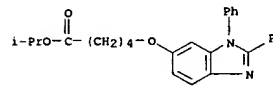
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



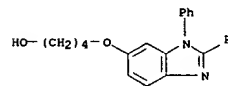
RN 350231-43-5 CAPLUS  
CN Propanoic acid, 2-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350231-44-6 CAPLUS  
CN Pentanoic acid, 5-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

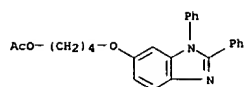


RN 350231-45-7 CAPLUS  
CN Butanol, 4-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)

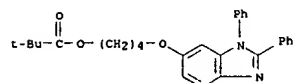


RN 350231-46-8 CAPLUS  
CN 1-Butanol, 4-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, acetate (ester) (9CI) (CA INDEX NAME)

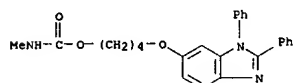
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



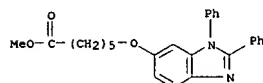
RN 350231-47-9 CAPLUS  
CN Propanoic acid, 2,2-dimethyl-, 4-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]butyl ester (9CI) (CA INDEX NAME)



RN 350231-48-0 CAPLUS  
CN 1-Butanol, 4-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methylcarbamate (ester) (9CI) (CA INDEX NAME)

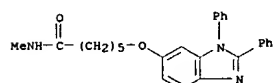


RN 350231-49-1 CAPLUS  
CN Hexanoic acid, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

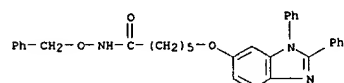


RN 350231-50-4 CAPLUS  
CN Hexanoic acid, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

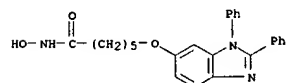
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



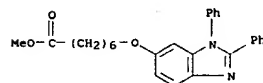
RN 350231-55-9 CAPLUS  
CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-(phenylmethoxy)- (9CI) (CA INDEX NAME)



RN 350231-56-0 CAPLUS  
CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-hydroxy- (9CI) (CA INDEX NAME)

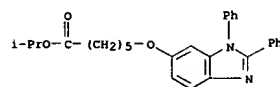


RN 350231-57-1 CAPLUS  
CN Heptanoic acid, 7-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

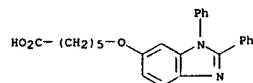


RN 350231-58-2 CAPLUS  
CN Heptanoic acid, 7-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)

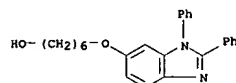
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



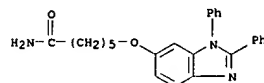
RN 350231-51-5 CAPLUS  
CN Hexanoic acid, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)



RN 350231-52-6 CAPLUS  
CN 1-Hexanol, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)

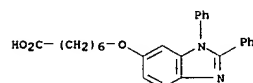


RN 350231-53-7 CAPLUS  
CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)

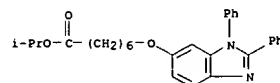


RN 350231-54-8 CAPLUS  
CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-methyl- (9CI) (CA INDEX NAME)

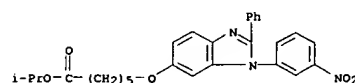
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



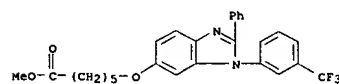
RN 350231-59-3 CAPLUS  
CN Heptanoic acid, 7-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350231-60-6 CAPLUS  
CN Hexanoic acid, 6-[(1-(3-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

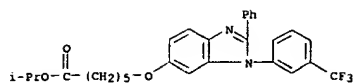


RN 350231-61-7 CAPLUS  
CN Hexanoic acid, 6-[(2-phenyl-1-[3-(trifluoromethyl)phenyl]-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

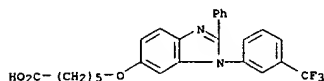


RN 350231-62-8 CAPLUS  
CN Hexanoic acid, 6-[(2-phenyl-1-[3-(trifluoromethyl)phenyl]-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

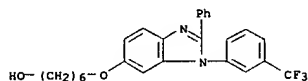
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



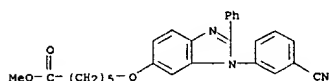
RN 350231-63-9 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)



RN 350231-64-0 CAPLUS  
 CN 1-Hexanol, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

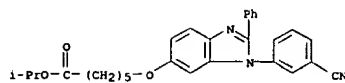


RN 350231-65-1 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

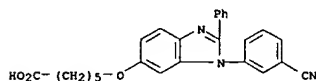


RN 350231-66-2 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

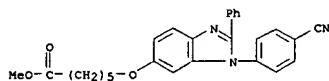
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



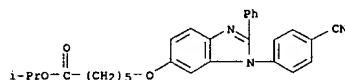
RN 350231-67-3 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)



RN 350231-68-4 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

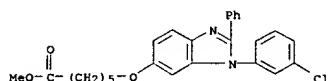


RN 350231-69-5 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

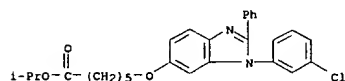


RN 350231-70-8 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

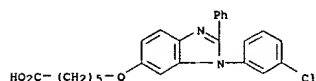
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



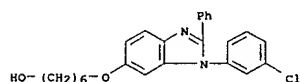
RN 350231-71-9 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)



RN 350231-72-0 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

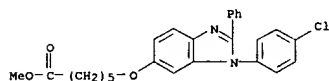


RN 350231-73-1 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

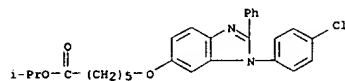


RN 350231-74-2 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

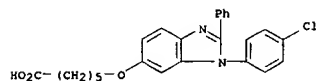
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



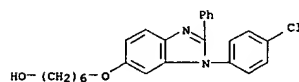
RN 350231-75-3 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)



RN 350231-76-4 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

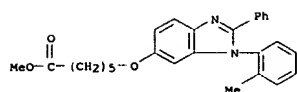


RN 350231-77-5 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

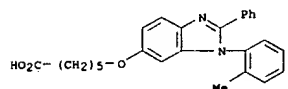


RN 350231-78-6 CAPLUS  
 CN Hexanoic acid, 6-[[1-(2-phenyl-1-((3-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl)oxy)-(9CI) (CA INDEX NAME)

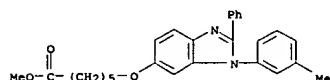
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



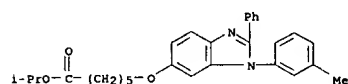
RN 350231-79-7 CAPLUS  
 CN Hexanoic acid, 6-([1-(2-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-  
 (9CI) (CA INDEX NAME)



RN 350231-80-0 CAPLUS  
 CN Hexanoic acid,  
 6-([1-(3-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-,  
 methyl ester (9CI) (CA INDEX NAME)

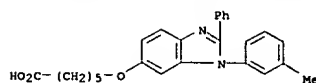


RN 350231-81-1 CAPLUS  
 CN Hexanoic acid,  
 6-([1-(3-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-,  
 1-methylethyl ester (9CI) (CA INDEX NAME)

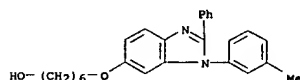


RN 350231-82-2 CAPLUS  
 CN Hexanoic acid, 6-([1-(3-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-  
 (9CI) (CA INDEX NAME)

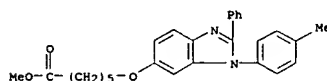
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



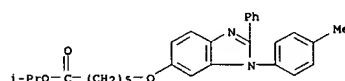
RN 350231-83-3 CAPLUS  
 CN 1-Hexanol, 6-([1-(3-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-  
 (9CI) (CA INDEX NAME)



RN 350231-84-4 CAPLUS  
 CN Hexanoic acid,  
 6-([1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-,  
 methyl ester (9CI) (CA INDEX NAME)

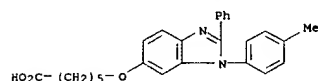


RN 350231-85-5 CAPLUS  
 CN Hexanoic acid,  
 6-([1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-,  
 1-methylethyl ester (9CI) (CA INDEX NAME)

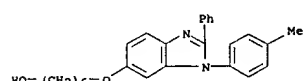


RN 350231-86-6 CAPLUS  
 CN Hexanoic acid, 6-([1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-  
 (9CI) (CA INDEX NAME)

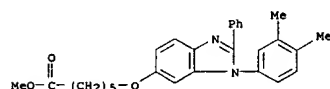
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



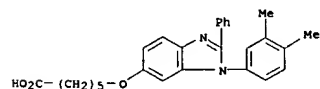
RN 350231-87-7 CAPLUS  
 CN 1-Hexanol, 6-([1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-  
 (9CI) (CA INDEX NAME)



RN 350231-88-8 CAPLUS  
 CN Hexanoic acid, 6-([1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-,  
 methyl ester (9CI) (CA INDEX NAME)

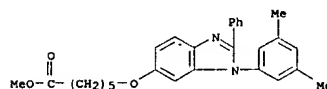


RN 350231-89-9 CAPLUS  
 CN Hexanoic acid, 6-([1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-  
 (9CI) (CA INDEX NAME)

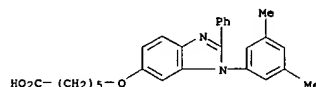


RN 350231-90-2 CAPLUS  
 CN Hexanoic acid, 6-([1-(3,5-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-,  
 methyl ester (9CI) (CA INDEX NAME)

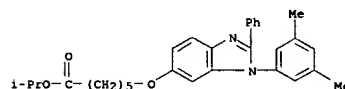
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



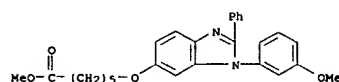
RN 350231-91-3 CAPLUS  
 CN Hexanoic acid, 6-([1-(3,5-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-  
 (9CI) (CA INDEX NAME)



RN 350231-93-5 CAPLUS  
 CN Hexanoic acid, 6-([1-(3,5-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-,  
 1-methylethyl ester (9CI) (CA INDEX NAME)

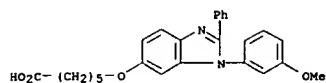


RN 350231-95-7 CAPLUS  
 CN Hexanoic acid,  
 6-([1-(3-methoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-,  
 methyl ester (9CI) (CA INDEX NAME)

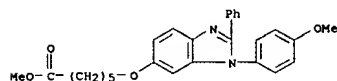


RN 350231-96-8 CAPLUS  
 CN Hexanoic acid,  
 6-([1-(3-methoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy)-  
 (9CI) (CA INDEX NAME)

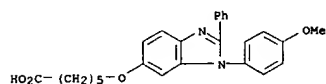
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



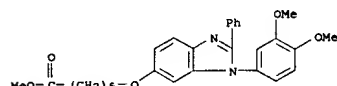
RN 350231-97-9 CAPLUS  
 CN Hexanoic acid,  
 6-[[1-(4-methoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-  
 , methyl ester (9CI) (CA INDEX NAME)



RN 350231-98-0 CAPLUS  
 CN Hexanoic acid,  
 6-[[1-(3,4-dimethoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-  
 (9CI) (CA INDEX NAME)

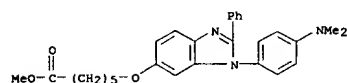


RN 350231-99-1 CAPLUS  
 CN Hexanoic acid, 6-[[1-(3,4-dimethoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

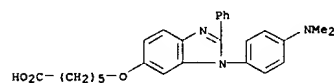


RN 350232-00-7 CAPLUS  
 CN Hexanoic acid, 6-[[1-(3,4-dimethoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

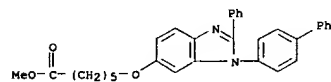
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



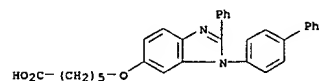
RN 350232-07-4 CAPLUS  
 CN Hexanoic acid,  
 6-[[1-(4-(dimethylamino)phenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



RN 350232-08-5 CAPLUS  
 CN Hexanoic acid, 6-[[1-(1,1'-biphenyl)-4-yl-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

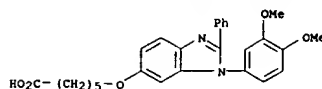


RN 350232-09-6 CAPLUS  
 CN Hexanoic acid, 6-[[1-(1,1'-biphenyl)-4-yl-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

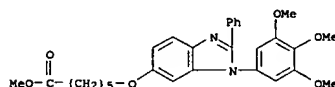


RN 350232-13-2 CAPLUS  
 CN Hexanoic acid,  
 6-[[1-phenyl-2-[3-(trifluoromethyl)phenyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

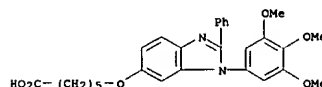
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



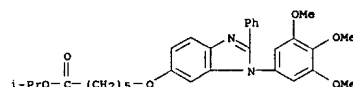
RN 350232-03-0 CAPLUS  
 CN Hexanoic acid, 6-[[1-phenyl-2-[3,4,5-trimethoxyphenyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350232-04-1 CAPLUS  
 CN Hexanoic acid, 6-[[1-phenyl-2-[3,4,5-trimethoxyphenyl]-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

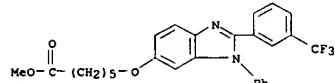


RN 350232-05-2 CAPLUS  
 CN Hexanoic acid, 6-[[1-phenyl-2-[3,4,5-trimethoxyphenyl]-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

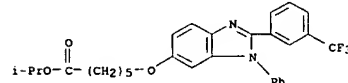


RN 350232-06-3 CAPLUS  
 CN Hexanoic acid,  
 6-[[1-(4-(dimethylamino)phenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

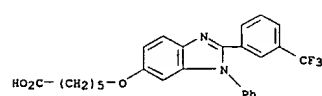
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



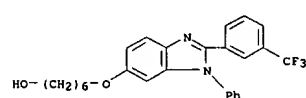
RN 350232-14-3 CAPLUS  
 CN Hexanoic acid,  
 6-[[1-phenyl-2-[3-(trifluoromethyl)phenyl]-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-15-4 CAPLUS  
 CN Hexanoic acid,  
 6-[[1-phenyl-2-[3-(trifluoromethyl)phenyl]-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

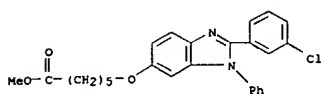


RN 350232-16-5 CAPLUS  
 CN 1-Hexanol, 6-[[1-phenyl-2-[3-(trifluoromethyl)phenyl]-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

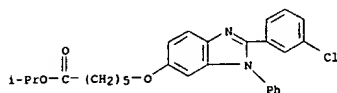


RN 350232-17-6 CAPLUS  
 CN Hexanoic acid,  
 6-[[2-(3-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

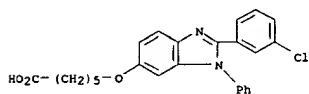
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



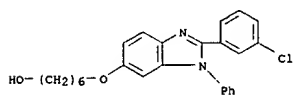
RN 350232-18-7 CAPLUS  
 CN Hexanoic acid, 6-[[2-(3-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-19-8 CAPLUS  
 CN Hexanoic acid, 6-[[2-(3-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

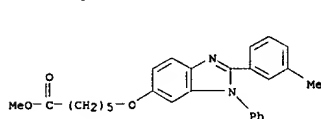


RN 350232-20-1 CAPLUS  
 CN 1-Hexanol, 6-[[2-(3-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

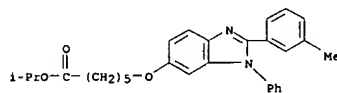


RN 350232-21-2 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

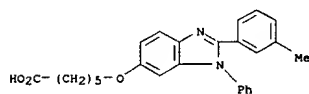
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



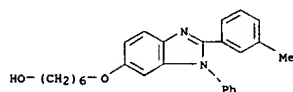
RN 350232-26-7 CAPLUS  
 CN Hexanoic acid, 6-[[2-(3-methylphenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-27-8 CAPLUS  
 CN Hexanoic acid, 6-[[2-(3-methylphenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

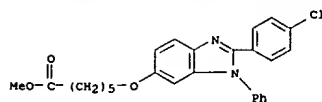


RN 350232-28-9 CAPLUS  
 CN 1-Hexanol, 6-[[2-(3-methylphenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

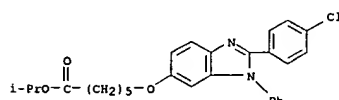


RN 350232-29-0 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-methylphenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

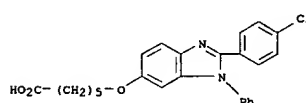
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



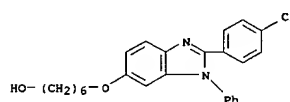
RN 350232-22-3 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-23-4 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

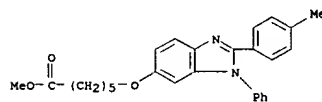


RN 350232-24-5 CAPLUS  
 CN 1-Hexanol, 6-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

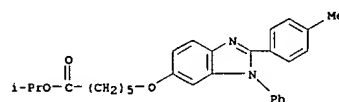


RN 350232-25-6 CAPLUS  
 CN Hexanoic acid, 6-[[2-(3-methylphenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

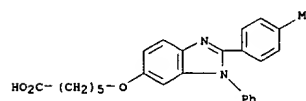
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



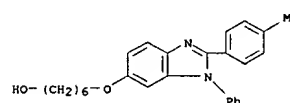
RN 350232-30-3 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-methylphenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-31-4 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-methylphenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



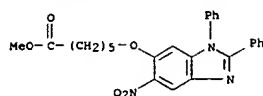
RN 350232-32-5 CAPLUS  
 CN 1-Hexanol, 6-[[2-(4-methylphenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



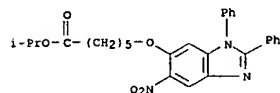
RN 350232-35-8 CAPLUS  
 CN Hexanoic acid, 6-[[2-(5-nitro-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



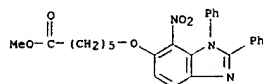
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



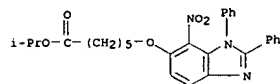
RN 350232-36-9 CAPLUS  
 CN Hexanoic acid, 6-[(5-nitro-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-37-0 CAPLUS  
 CN Hexanoic acid, 6-[(7-nitro-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

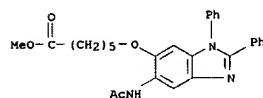


RN 350232-38-1 CAPLUS  
 CN Hexanoic acid, 6-[(7-nitro-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

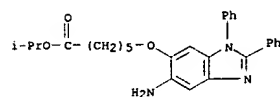


RN 350232-39-2 CAPLUS  
 CN Hexanoic acid, 6-[(7-amino-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

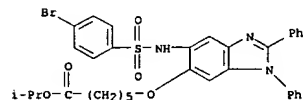
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



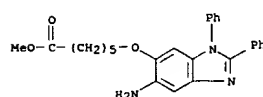
RN 350232-44-9 CAPLUS  
 CN Hexanoic acid, 6-[(5-amino-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-45-0 CAPLUS  
 CN Hexanoic acid, 6-[(5-[(4-bromophenyl)sulfonyl]amino)-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

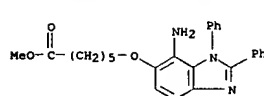


RN 350232-46-1 CAPLUS  
 CN Hexanoic acid, 6-[(5-amino-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

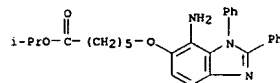


RN 350232-47-2 CAPLUS  
 CN Hexanoic acid, 6-[(5-[(4-chlorophenyl)sulfonyl]amino)-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

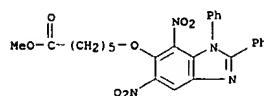
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



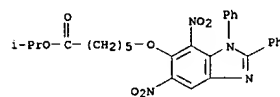
RN 350232-40-5 CAPLUS  
 CN Hexanoic acid, 6-[(7-amino-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-41-6 CAPLUS  
 CN Hexanoic acid, 6-[(5,7-dinitro-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

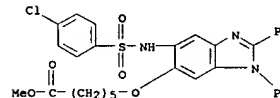


RN 350232-42-7 CAPLUS  
 CN Hexanoic acid, 6-[(5,7-dinitro-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

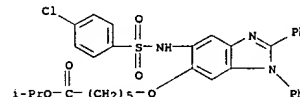


RN 350232-43-8 CAPLUS  
 CN Hexanoic acid, 6-[(5-(acetylamino)-1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)

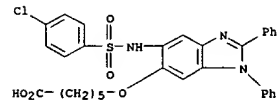
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



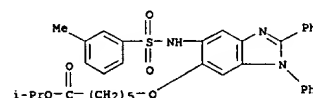
RN 350232-48-3 CAPLUS  
 CN Hexanoic acid, 6-[(5-[(4-chlorophenyl)sulfonyl]amino)-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-49-4 CAPLUS  
 CN Hexanoic acid, 6-[(5-[(4-chlorophenyl)sulfonyl]amino)-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

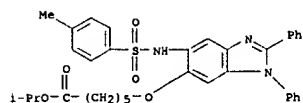


RN 350232-50-7 CAPLUS  
 CN Hexanoic acid, 6-[(5-[(3-methylphenyl)sulfonyl]amino)-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

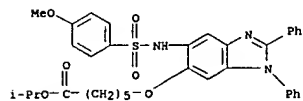


RN 350232-51-8 CAPLUS  
 CN Hexanoic acid, 6-[(5-[(4-methylphenyl)sulfonyl]amino)-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

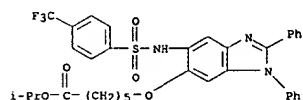
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



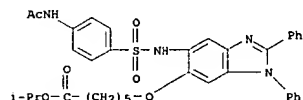
RN 350232-52-9 CAPLUS  
 CN Hexanoic acid, 6-[[5-[[4-methoxyphenyl]sulfonyl]amino]-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



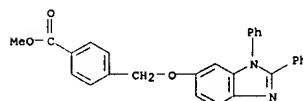
RN 350232-53-0 CAPLUS  
 CN Hexanoic acid, 6-[[1,2-diphenyl-5-[[4-(trifluoromethyl)phenyl]sulfonyl]amino]-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



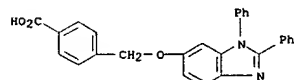
RN 350232-55-2 CAPLUS  
 CN Hexanoic acid, 6-[[5-[[4-(acetamidophenyl)phenyl]sulfonyl]amino]-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



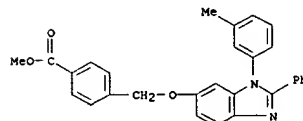
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



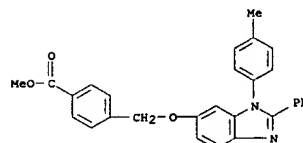
RN 350232-64-3 CAPLUS  
 CN Benzoic acid, 4-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]methyl]- (9CI) (CA INDEX NAME)



RN 350232-65-4 CAPLUS  
 CN Benzoic acid, 4-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]methyl]-, methyl ester (9CI) (CA INDEX NAME)



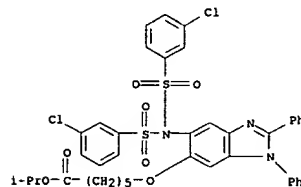
RN 350232-67-6 CAPLUS  
 CN Benzoic acid, 4-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]methyl]-, methyl ester (9CI) (CA INDEX NAME)



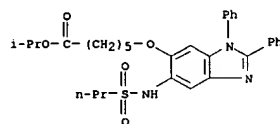
RN 350232-68-7 CAPLUS  
 CN Acetic acid, [2-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]ethoxy]-,

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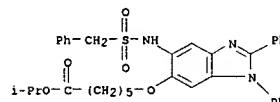
RN 350232-57-4 CAPLUS  
 CN Hexanoic acid, 6-[[5-[[3-chlorophenyl]sulfonyl]amino]-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350232-59-6 CAPLUS  
 CN Hexanoic acid, 6-[[1,2-diphenyl-5-[[propylsulfonyl]amino]-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

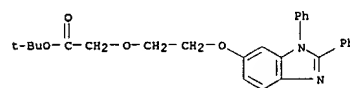


RN 350232-60-9 CAPLUS  
 CN Hexanoic acid, 6-[[1,2-diphenyl-5-[[phenylmethyl]sulfonyl]amino]-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

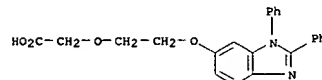


RN 350232-62-1 CAPLUS  
 CN Benzoic acid, 4-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]methyl]-, methyl ester (9CI) (CA INDEX NAME)

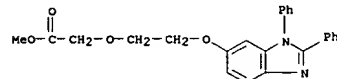
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



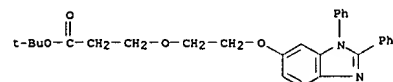
RN 350232-69-8 CAPLUS  
 CN Acetic acid, [2-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]ethoxy]- (9CI) (CA INDEX NAME)



RN 350232-70-1 CAPLUS  
 CN Acetic acid, [2-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)

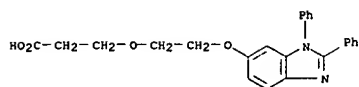


RN 350232-71-2 CAPLUS  
 CN Propanoic acid, 3-[2-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]ethoxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

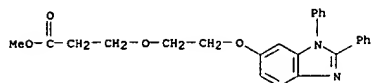


RN 350232-72-3 CAPLUS  
 CN Propanoic acid, 3-[2-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]ethoxy]- (9CI) (CA INDEX NAME)

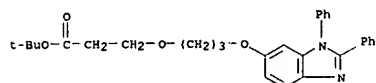
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



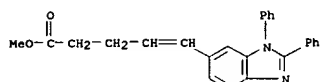
RN 350232-74-5 CAPLUS  
 CN Propanoic acid, 3-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]ethoxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350232-75-6 CAPLUS  
 CN Propanoic acid, 3-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]propoxy]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



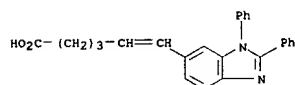
RN 350232-76-7 CAPLUS  
 CN 4-Pentenoic acid, 5-(1,2-diphenyl-1H-benzimidazol-6-yl)-, methyl ester (9CI) (CA INDEX NAME)



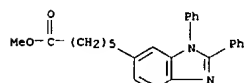
RN 350232-77-8 CAPLUS  
 CN 4-Pentenoic acid, 5-(1,2-diphenyl-1H-benzimidazol-6-yl)-, (4E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

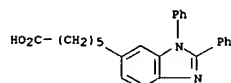
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



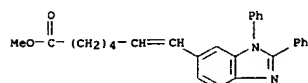
RN 350232-82-5 CAPLUS  
 CN 1H-Benzimidazole-6-hexanoic acid, 1,2-diphenyl-, methyl ester (9CI) (CA INDEX NAME)



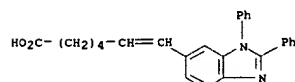
RN 350232-83-6 CAPLUS  
 CN 1H-Benzimidazole-6-hexanoic acid, 1,2-diphenyl- (9CI) (CA INDEX NAME)



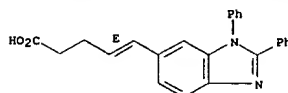
RN 350232-84-7 CAPLUS  
 CN 6-Heptenoic acid, 7-(1,2-diphenyl-1H-benzimidazol-6-yl)-, methyl ester (9CI) (CA INDEX NAME)



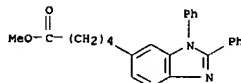
RN 350232-86-9 CAPLUS  
 CN 6-Heptenoic acid, 7-(1,2-diphenyl-1H-benzimidazol-6-yl)- (9CI) (CA INDEX NAME)



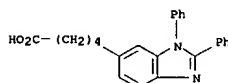
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



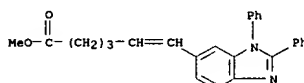
RN 350232-78-9 CAPLUS  
 CN 1H-Benzimidazole-6-pentanoic acid, 1,2-diphenyl-, methyl ester (9CI) (CA INDEX NAME)



RN 350232-79-0 CAPLUS  
 CN 1H-Benzimidazole-6-pentanoic acid, 1,2-diphenyl- (9CI) (CA INDEX NAME)



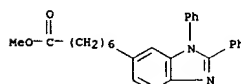
RN 350232-80-3 CAPLUS  
 CN 5-Hexenoic acid, 6-(1,2-diphenyl-1H-benzimidazol-6-yl)-, methyl ester (9CI) (CA INDEX NAME)



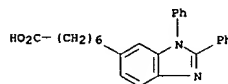
RN 350232-81-4 CAPLUS  
 CN 5-Hexenoic acid, 6-(1,2-diphenyl-1H-benzimidazol-6-yl)- (9CI) (CA INDEX NAME)

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

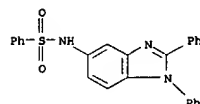
RN 350232-88-1 CAPLUS  
 CN 1H-Benzimidazole-6-heptanoic acid, 1,2-diphenyl-, methyl ester (9CI) (CA INDEX NAME)



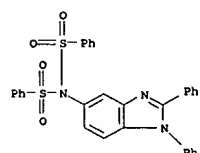
RN 350232-90-5 CAPLUS  
 CN 1H-Benzimidazole-6-heptanoic acid, 1,2-diphenyl- (9CI) (CA INDEX NAME)



RN 350232-92-7 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)- (9CI) (CA INDEX NAME)

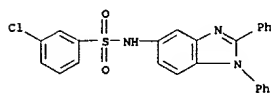


RN 350232-93-8 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)

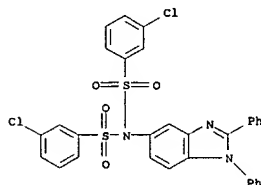


RN 350232-94-9 CAPLUS

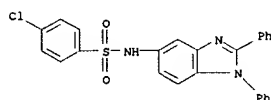
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CN Benzenesulfonamide, 3-chloro-N-(1,2-diphenyl-1H-benzimidazol-5-yl)- (9CI)  
 (CA INDEX NAME)



RN 350232-96-1 CAPLUS  
 CN Benzenesulfonamide,  
 3-chloro-N-[(3-chlorophenyl)sulfonyl]-N-(1,2-diphenyl-  
 1H-benzimidazol-5-yl)- (9CI) (CA INDEX NAME)

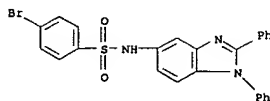


RN 350232-98-3 CAPLUS  
 CN Benzenesulfonamide, 4-chloro-N-(1,2-diphenyl-1H-benzimidazol-5-yl)- (9CI)  
 (CA INDEX NAME)

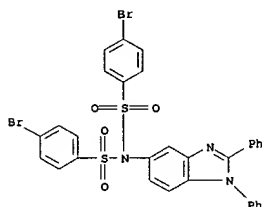


RN 350233-00-0 CAPLUS  
 CN Benzenesulfonamide, 4-bromo-N-(1,2-diphenyl-1H-benzimidazol-5-yl)- (9CI)  
 (CA INDEX NAME)

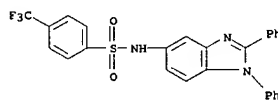
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 350233-02-2 CAPLUS  
 CN Benzenesulfonamide,  
 4-bromo-N-[(4-bromophenyl)sulfonyl]-N-(1,2-diphenyl-1H-  
 benzimidazol-5-yl)- (9CI) (CA INDEX NAME)

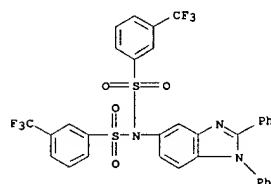


RN 350233-04-4 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-4-  
 (trifluoromethyl)- (9CI) (CA INDEX NAME)

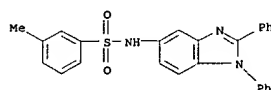


RN 350233-06-6 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-3-  
 (trifluoromethyl)-N-[(3-(trifluoromethyl)phenyl)sulfonyl]- (9CI) (CA  
 INDEX NAME)

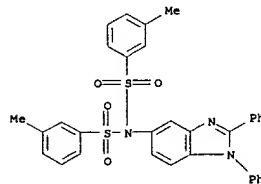
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 350233-08-8 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-3-methyl- (9CI)  
 (CA INDEX NAME)

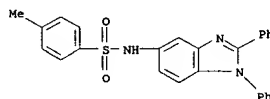


RN 350233-10-2 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-3-methyl-N-[(3-  
 methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)

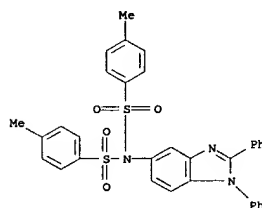


RN 350233-12-4 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-4-methyl- (9CI)  
 (CA INDEX NAME)

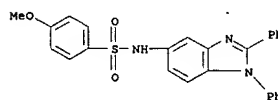
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 350233-14-6 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-4-methyl-N-[(4-  
 methylphenyl)sulfonyl]- (9CI) (CA INDEX NAME)

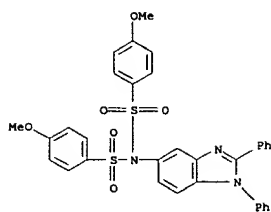


RN 350233-16-8 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-4-methoxy-  
 (9CI) (CA INDEX NAME)

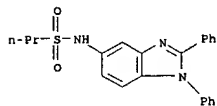


RN 350233-18-0 CAPLUS  
 CN Benzenesulfonamide,  
 N-(1,2-diphenyl-1H-benzimidazol-5-yl)-4-methoxy-N-[(4-  
 methoxyphenyl)sulfonyl]- (9CI) (CA INDEX NAME)

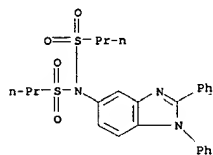
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 350233-20-4 CAPLUS  
CN 1-Propanesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)- (9CI) (CA INDEX NAME)

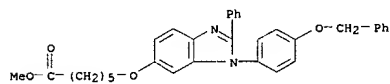


RN 350233-22-6 CAPLUS  
CN 1-Propanesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-N-(propylsulfonyl)- (9CI) (CA INDEX NAME)

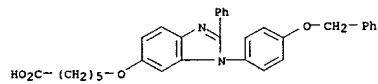


RN 350233-24-8 CAPLUS  
CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)- (9CI) (CA INDEX NAME)

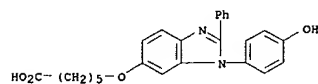
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



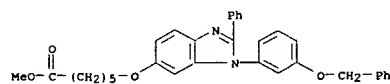
RN 350233-35-1 CAPLUS  
CN Hexanoic acid, 6-[(2-phenyl-1-[4-(phenylmethoxy)phenyl]-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



RN 350233-36-2 CAPLUS  
CN Hexanoic acid, 6-[(1-(4-hydroxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

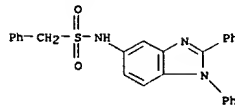


RN 350233-38-4 CAPLUS  
CN Hexanoic acid, 6-[(2-phenyl-1-[3-(phenylmethoxy)phenyl]-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

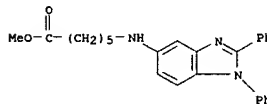


RN 350233-40-8 CAPLUS  
CN Hexanoic acid, 6-[(2-phenyl-1-[3-(phenylmethoxy)phenyl]-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

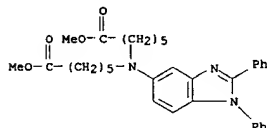
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



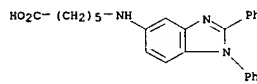
RN 350233-26-0 CAPLUS  
CN Hexanoic acid, 6-[(1,2-diphenyl-1H-benzimidazol-5-yl)amino]-, methyl ester (9CI) (CA INDEX NAME)



RN 350233-28-2 CAPLUS  
CN Hexanoic acid, 6,6'-[(1,2-diphenyl-1H-benzimidazol-5-yl)imino]bis-, dimethyl ester (9CI) (CA INDEX NAME)

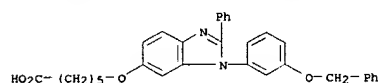


RN 350233-30-6 CAPLUS  
CN Hexanoic acid, 6-[(1,2-diphenyl-1H-benzimidazol-5-yl)amino]- (9CI) (CA INDEX NAME)

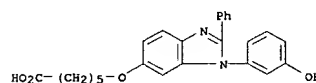


RN 350233-33-9 CAPLUS  
CN Hexanoic acid, 6-[(2-phenyl-1-[4-(phenylmethoxy)phenyl]-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

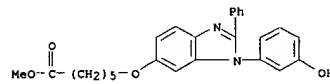
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



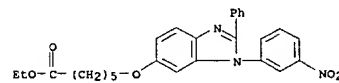
RN 350233-42-0 CAPLUS  
CN Hexanoic acid, 6-[(1-(3-hydroxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



RN 350233-44-2 CAPLUS  
CN Hexanoic acid, 6-[(1-(3-hydroxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

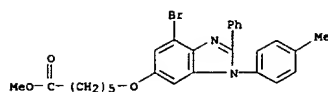


RN 350233-46-4 CAPLUS  
CN Hexanoic acid, 6-[(1-(3-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, ethyl ester (9CI) (CA INDEX NAME)

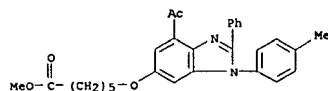


RN 350233-48-6 CAPLUS  
CN Hexanoic acid, 6-[(4-bromo-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

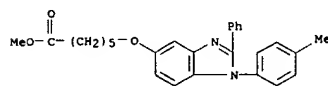
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



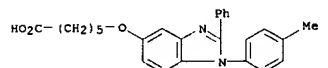
RN 350233-50-0 CAPLUS  
 CN Hexanoic acid, 6-[[1-(4-acetyl-1-phenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350233-52-2 CAPLUS  
 CN Hexanoic acid, 6-[[1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-5-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



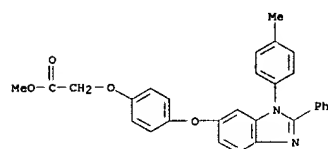
RN 350233-54-4 CAPLUS  
 CN Hexanoic acid, 6-[[1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-5-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



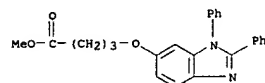
RN 350233-56-6 CAPLUS  
 CN Hexanoic acid, 6-[[1-(4-methylthio)phenyl)-2-phenyl-1H-benzimidazol-5-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

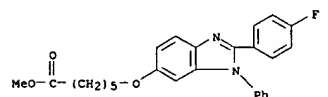
RN 350233-68-0 CAPLUS  
 CN Acetic acid, 4-[[1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350233-70-4 CAPLUS  
 CN Butanoic acid, 4-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

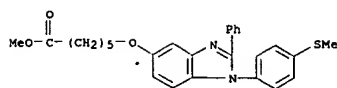


RN 350233-81-7 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-fluorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

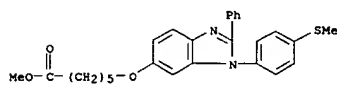


RN 350233-83-9 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-methoxyphenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

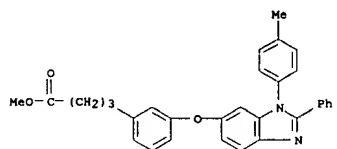
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



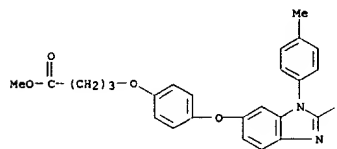
RN 350233-58-8 CAPLUS  
 CN Hexanoic acid, 6-[[1-(4-methylthio)phenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



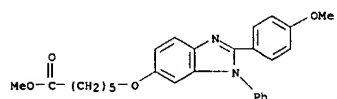
RN 350233-64-6 CAPLUS  
 CN Benzenebutanoic acid, 3-[[1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



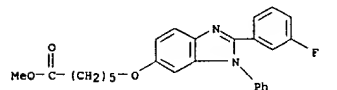
RN 350233-66-8 CAPLUS  
 CN Butanoic acid, 4-[[4-[[1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]phenoxy]-, methyl ester (9CI) (CA INDEX NAME)



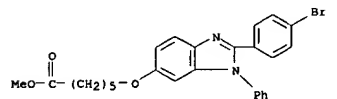
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



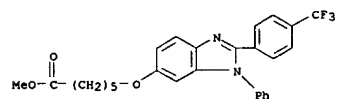
RN 350233-85-1 CAPLUS  
 CN Hexanoic acid, 6-[[2-(3-fluorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350233-87-3 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-bromophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

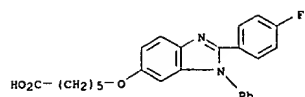


RN 350233-89-5 CAPLUS  
 CN Hexanoic acid, 6-[[1-phenyl-2-(4-(trifluoromethyl)phenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

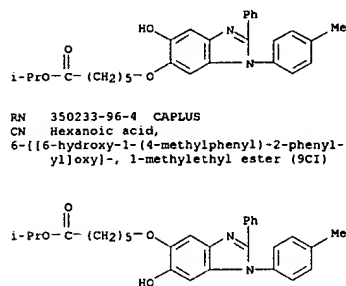


RN 350233-90-8 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-fluorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

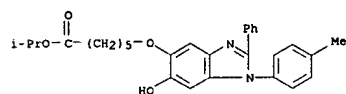
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



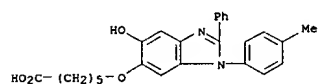
RN 350233-94-2 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-hydroxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350233-96-4 CAPLUS  
 CN Hexanoic acid,  
 6-[[6-hydroxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-5-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

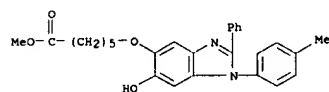


RN 350233-98-6 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-hydroxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

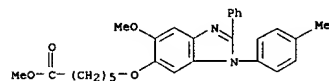


RN 350234-00-3 CAPLUS  
 CN Hexanoic acid,  
 6-[[6-hydroxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-5-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

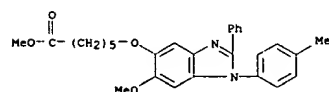
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



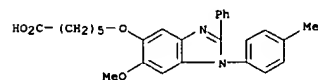
RN 350234-07-0 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-methoxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350234-09-2 CAPLUS  
 CN Hexanoic acid,  
 6-[[6-methoxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-5-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

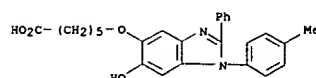


RN 350234-11-6 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-amino-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

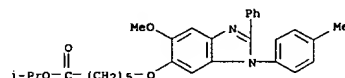


RN 350234-13-8 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-amino-1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

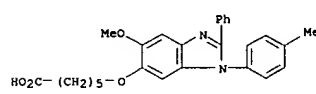
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



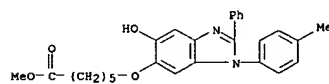
RN 350234-01-4 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-methoxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)



RN 350234-02-5 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-methoxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

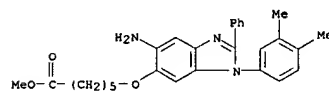


RN 350234-03-6 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-hydroxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

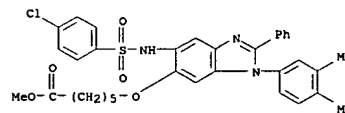


RN 350234-05-8 CAPLUS  
 CN Hexanoic acid,  
 6-[[6-hydroxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-5-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

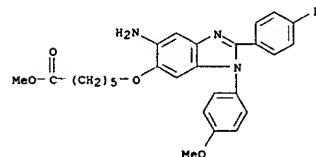
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 350234-15-0 CAPLUS  
 CN Hexanoic acid, 6-[[5-[[[4-chlorophenyl]sulfonyl]amino]-1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

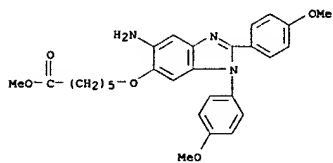


RN 350234-16-1 CAPLUS  
 CN Hexanoic acid, 6-[[5-amino-2-(4-fluorophenyl)-1-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

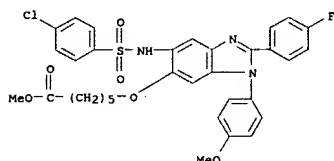


RN 350234-17-2 CAPLUS  
 CN Hexanoic acid, 6-[[5-amino-1,2-bis(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

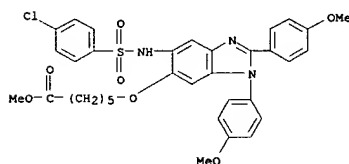
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 350234-18-3 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-[[4-(4-chlorophenyl)sulfonylamino]-2-(4-fluorophenyl)-  
 1-(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



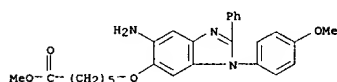
RN 350234-19-4 CAPLUS  
 CN Hexanoic acid, 6-[[5-[[4-(4-chlorophenyl)sulfonylamino]-1,2-bis(4-methoxyphenyl)-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



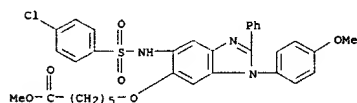
RN 350234-21-8 CAPLUS  
 CN Butanoic acid,  
 4-[[5-amino-1-(4-methoxyphenyl)-2-phenyl-1H-benzimidazol-6-

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

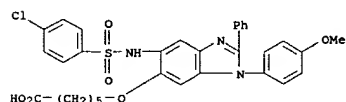
RN 350234-27-4 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-amino-1-(4-methoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



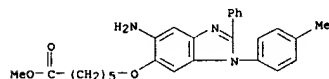
RN 350234-28-5 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-[[4-(4-chlorophenyl)sulfonylamino]-1-(4-methoxyphenyl)-  
 2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350234-29-6 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-[[4-(4-chlorophenyl)sulfonylamino]-1-(4-methoxyphenyl)-  
 2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



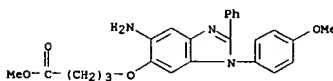
RN 350234-30-9 CAPLUS  
 CN Hexanoic acid, 6-[[5-amino-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



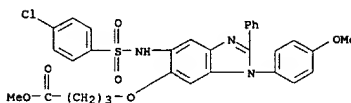
RN 350234-31-0 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-[[4-(4-chlorophenyl)sulfonylamino]-1-(4-methylphenyl)-

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

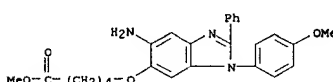
yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



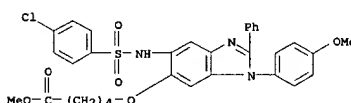
RN 350234-22-9 CAPLUS  
 CN Butanoic acid,  
 4-[[5-[[4-(4-chlorophenyl)sulfonylamino]-1-(4-methoxyphenyl)-  
 2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350234-23-0 CAPLUS  
 CN Pentanoic acid,  
 5-[[5-amino-1-(4-methoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

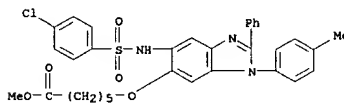


RN 350234-25-2 CAPLUS  
 CN Pentanoic acid, 5-[[5-[[4-(4-chlorophenyl)sulfonylamino]-1-(4-methoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

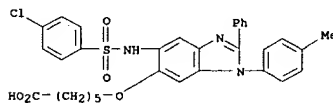


L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

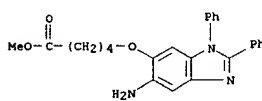
2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



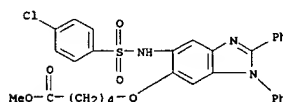
RN 350234-32-1 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-[[4-(4-chlorophenyl)sulfonylamino]-1-(4-methylphenyl)-  
 2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



RN 350234-33-2 CAPLUS  
 CN Pentanoic acid, 5-[[5-amino-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



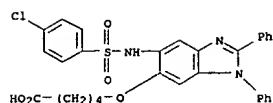
RN 350234-34-3 CAPLUS  
 CN Pentanoic acid, 5-[[5-[[4-(4-chlorophenyl)sulfonylamino]-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



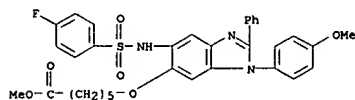
RN 350234-35-4 CAPLUS  
 CN Pentanoic acid, 5-[[5-[[4-(4-chlorophenyl)sulfonylamino]-1,2-diphenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



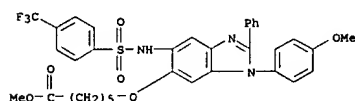
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



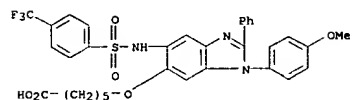
RN 350234-36-5 CAPLUS  
 CN Hexanoic acid,  
 6-[[5-[(4-fluorophenyl)sulfonyl]amino]-1-(4-methoxyphenyl)-  
 2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



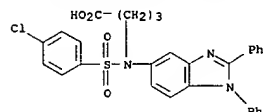
RN 350234-37-6 CAPLUS  
 CN Hexanoic acid, 6-[[1-(4-methoxyphenyl)-2-phenyl-5-[[4-(  
 (trifluoromethyl)phenyl)sulfonyl]amino]-1H-benzimidazol-6-yl]oxy]-,  
 methyl ester (9CI) (CA INDEX NAME)



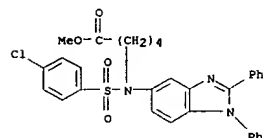
RN 350234-38-7 CAPLUS  
 CN Hexanoic acid, 6-[[1-(4-methoxyphenyl)-2-phenyl-5-[[4-(  
 (trifluoromethyl)phenyl)sulfonyl]amino]-1H-benzimidazol-6-yl]oxy]- (9CI)  
 (CA INDEX NAME)



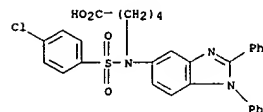
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 350234-43-4 CAPLUS  
 CN Pentanoic acid,  
 5-[[4-(4-chlorophenyl)sulfonyl]amino]-1-(1,2-diphenyl-1H-benzimidazol-  
 5-yl)amino]-, methyl ester (9CI) (CA INDEX NAME)



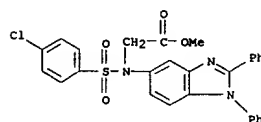
RN 350234-44-5 CAPLUS  
 CN Pentanoic acid,  
 5-[[4-(4-chlorophenyl)sulfonyl]amino]-1-(1,2-diphenyl-1H-benzimidazol-  
 5-yl)amino]- (9CI) (CA INDEX NAME)



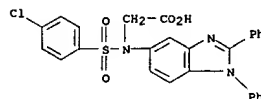
RN 350234-45-6 CAPLUS  
 CN Hexanoic acid,  
 6-[[4-(4-chlorophenyl)sulfonyl]amino]-1-(1,2-diphenyl-1H-benzimidazol-  
 5-yl)amino]-, methyl ester (9CI) (CA INDEX NAME)

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

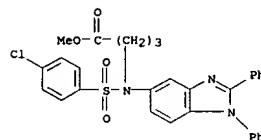
RN 350234-39-8 CAPLUS  
 CN Glycine, N-[(4-chlorophenyl)sulfonyl]-N-(1,2-diphenyl-1H-benzimidazol-5-  
 yl)-, methyl ester (9CI) (CA INDEX NAME)



RN 350234-40-1 CAPLUS  
 CN Glycine, N-[(4-chlorophenyl)sulfonyl]-N-(1,2-diphenyl-1H-benzimidazol-5-  
 yl)- (9CI) (CA INDEX NAME)

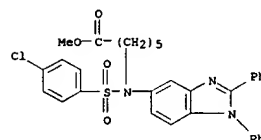


RN 350234-41-2 CAPLUS  
 CN Butanoic acid,  
 4-[[4-(4-chlorophenyl)sulfonyl]amino]-1-(1,2-diphenyl-1H-benzimidazol-  
 5-yl)amino]-, methyl ester (9CI) (CA INDEX NAME)

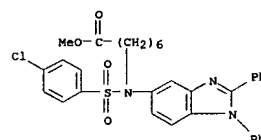


RN 350234-42-3 CAPLUS  
 CN Butanoic acid,  
 4-[[4-(4-chlorophenyl)sulfonyl]amino]-1-(1,2-diphenyl-1H-benzimidazol-  
 5-yl)amino]- (9CI) (CA INDEX NAME)

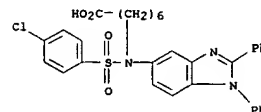
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 350234-46-7 CAPLUS  
 CN Heptanoic acid,  
 7-[[4-(4-chlorophenyl)sulfonyl]amino]-1-(1,2-diphenyl-1H-benzimidazol-  
 5-yl)amino]-, methyl ester (9CI) (CA INDEX NAME)

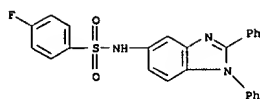


RN 350234-47-8 CAPLUS  
 CN Heptanoic acid,  
 7-[[4-(4-chlorophenyl)sulfonyl]amino]-1-(1,2-diphenyl-1H-benzimidazol-  
 5-yl)amino]- (9CI) (CA INDEX NAME)

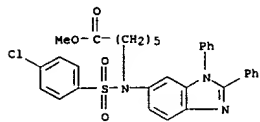


RN 350234-48-9 CAPLUS  
 CN Benzenesulfonamide, N-(1,2-diphenyl-1H-benzimidazol-5-yl)-4-fluoro- (9CI)  
 (CA INDEX NAME)

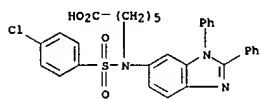
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 350234-49-0 CAPLUS  
 CN Hexanoic acid,  
 6-[(4-chlorophenyl)sulfonyl]-(1,2-diphenyl-1H-benzimidazol-  
 6-yl)amino]-, methyl ester (9CI) (CA INDEX NAME)



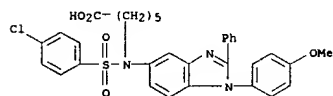
RN 350234-50-3 CAPLUS  
 CN Hexanoic acid,  
 6-[(4-chlorophenyl)sulfonyl]-(1,2-diphenyl-1H-benzimidazol-  
 6-yl)amino]- (9CI) (CA INDEX NAME)



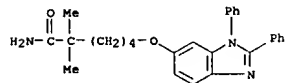
RN 350234-51-4 CAPLUS  
 CN Hexanoic acid, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)][4-  
 (trifluoromethyl)phenyl)sulfonyl]amino]-, methyl ester (9CI) (CA INDEX  
 NAME)

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

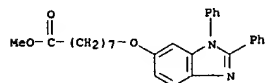
RN 350234-55-8 CAPLUS  
 CN Hexanoic acid,  
 6-[(4-chlorophenyl)sulfonyl]-[1-(4-methoxyphenyl)-2-phenyl-  
 1H-benzimidazol-5-yl]amino]- (9CI) (CA INDEX NAME)



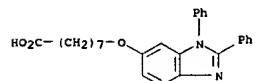
RN 350234-56-9 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-2,2-dimethyl-  
 (9CI) (CA INDEX NAME)



RN 350234-57-0 CAPLUS  
 CN Octanoic acid, 8-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester  
 (9CI) (CA INDEX NAME)

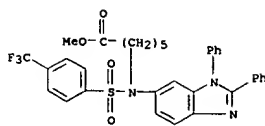


RN 350234-58-1 CAPLUS  
 CN Octanoic acid, 8-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA  
 INDEX NAME)

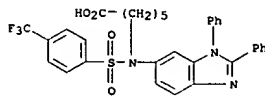


RN 350234-63-8 CAPLUS  
 CN Hexanoic acid,  
 6-[1-(3-fluorophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-,

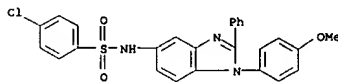
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



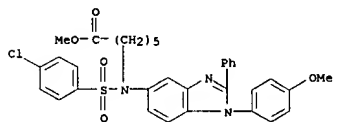
RN 350234-52-5 CAPLUS  
 CN Hexanoic acid, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)][4-  
 (trifluoromethyl)phenyl)sulfonyl]amino]- (9CI) (CA INDEX NAME)



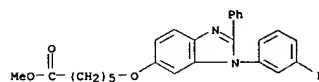
RN 350234-53-6 CAPLUS  
 CN Benzenesulfonamide, 4-chloro-N-[1-(4-methoxyphenyl)-2-phenyl-1H-  
 benzimidazol-5-yl]- (9CI) (CA INDEX NAME)



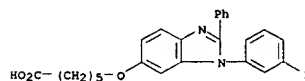
RN 350234-54-7 CAPLUS  
 CN Hexanoic acid,  
 6-[(4-chlorophenyl)sulfonyl]-[1-(4-methoxyphenyl)-2-phenyl-  
 1H-benzimidazol-5-yl]amino]-, methyl ester (9CI) (CA INDEX NAME)



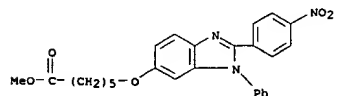
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 350234-64-9P 350234-65-0P 350234-66-1P  
 350234-68-3P 350234-69-4P 350234-70-7P  
 350234-71-0P 350234-72-9P 350234-73-0P  
 350234-74-1P 350234-75-2P 350234-76-3P  
 350234-77-4P 350234-78-5P 350234-79-6P  
 350234-80-9P 350234-81-0P 350234-82-1P  
 350234-83-2P 350234-84-3P 350234-85-4P  
 350234-86-5P 350234-87-6P 350234-88-7P  
 350234-89-8P 350234-90-1P 350234-91-2P  
 350234-92-3P 350234-93-4P 350234-94-5P  
 350234-95-6P 350234-96-7P 350234-97-8P  
 350234-98-9P 350234-99-0P 350235-00-6P  
 350235-01-7P 350235-02-8P 350235-03-9P  
 350235-15-3P 350235-16-4P 350235-17-5P  
 350235-18-6P 350238-47-0P 350238-48-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of 1,2-diarylbenzimidazolealkanoates and analogs for  
 treatment of disorders mediated by microglia activation)  
 RN 350234-64-9 CAPLUS  
 CN Hexanoic acid, 6-[(1-(3-fluorophenyl)-2-phenyl-1H-benzimidazol-6-yl)oxy]-  
 (9CI) (CA INDEX NAME)

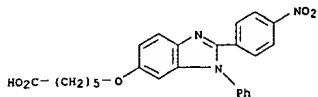


RN 350234-65-0 CAPLUS  
 CN Hexanoic acid, 6-[(2-(4-nitrophenyl)-1-phenyl-1H-benzimidazol-6-yl)oxy]-,  
 methyl ester (9CI) (CA INDEX NAME)

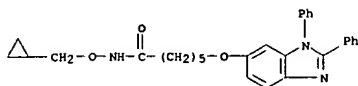


L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

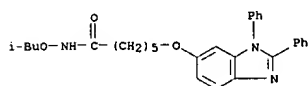
RN 350234-66-1 CAPLUS  
 CN Hexanoic acid, 6-[[2-(4-nitrophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



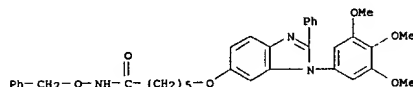
RN 350234-68-3 CAPLUS  
 CN Hexanamide, N-(cyclopropylmethoxy)-6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)



RN 350234-69-4 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-(2-methylpropoxy)- (9CI) (CA INDEX NAME)

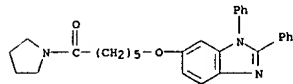


RN 350234-70-7 CAPLUS  
 CN Hexanamide, N-(phenylmethoxy)-6-[[2-phenyl-1-(3,4,5-trimethoxyphenyl)-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

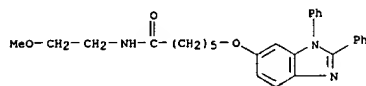


L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

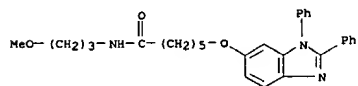
RN 350234-75-2 CAPLUS  
 CN Pyrrolidine, 1-[6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-1-oxohexyl]- (9CI) (CA INDEX NAME)



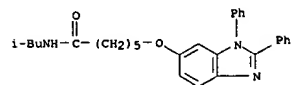
RN 350234-76-3 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-(2-methoxyethyl)- (9CI) (CA INDEX NAME)



RN 350234-77-4 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-(3-methoxypropyl)- (9CI) (CA INDEX NAME)



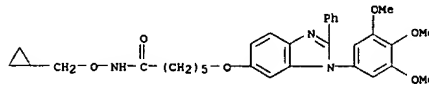
RN 350234-78-5 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-(2-methylpropyl)- (9CI) (CA INDEX NAME)



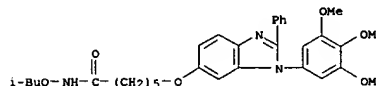
RN 350234-79-6 CAPLUS  
 CN Hexanamide, N-[2-(dimethylamino)ethyl]-6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-methyl- (9CI) (CA INDEX NAME)

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

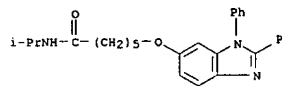
RN 350234-71-8 CAPLUS  
 CN Hexanamide, N-(cyclopropylmethoxy)-6-[[2-phenyl-1-(3,4,5-trimethoxyphenyl)-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



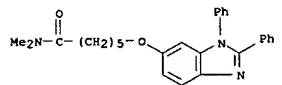
RN 350234-72-9 CAPLUS  
 CN Hexanamide, N-(2-methylpropoxy)-6-[[2-phenyl-1-(3,4,5-trimethoxyphenyl)-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



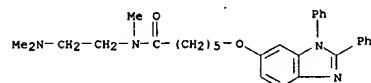
RN 350234-73-0 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



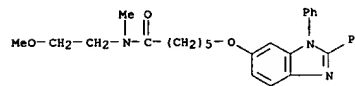
RN 350234-74-1 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)



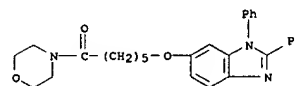
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



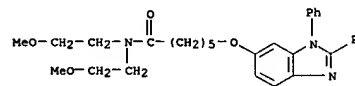
RN 350234-80-9 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-(2-methoxyethyl)-N-methyl- (9CI) (CA INDEX NAME)



RN 350234-81-0 CAPLUS  
 CN Morpholine, 4-[6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-1-oxohexyl]- (9CI) (CA INDEX NAME)

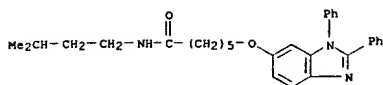


RN 350234-82-1 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N,N-bis(2-methoxyethyl)- (9CI) (CA INDEX NAME)

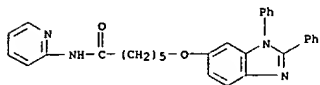


RN 350234-83-2 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-(3-methylbutyl)- (9CI) (CA INDEX NAME)

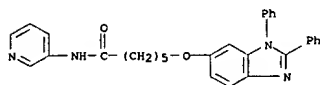
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



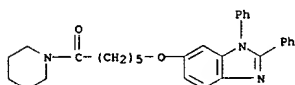
RN 350234-84-3 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-2-pyridinyl- (9CI) (CA INDEX NAME)



RN 350234-85-4 CAPLUS  
 CN Hexanamide, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-N-3-pyridinyl- (9CI) (CA INDEX NAME)



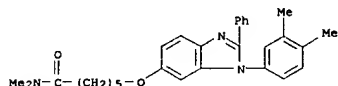
RN 350234-86-5 CAPLUS  
 CN Piperidine, 1-[6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-1-oxohexyl]- (9CI) (CA INDEX NAME)



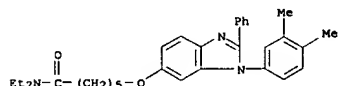
RN 350234-87-6 CAPLUS  
 CN 4-Piperidinecarboxamide, 1-[6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-1-oxohexyl]- (9CI) (CA INDEX NAME)

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

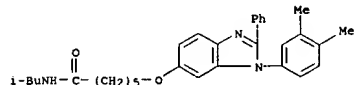
RN 350234-91-2 CAPLUS  
 CN Hexanamide, 6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)



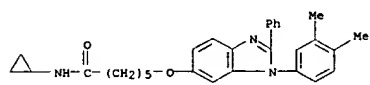
RN 350234-92-3 CAPLUS  
 CN Hexanamide, 6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 350234-93-4 CAPLUS  
 CN Hexanamide, 6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-N-(2-methylpropyl)- (9CI) (CA INDEX NAME)

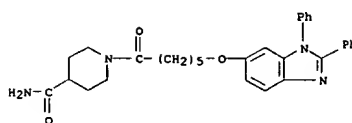


RN 350234-94-5 CAPLUS  
 CN Hexanamide, N-cyclobutyl-6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

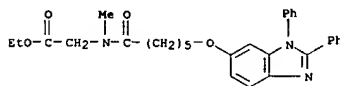


RN 350234-95-6 CAPLUS  
 CN Hexanamide, N-cyclobutyl-6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

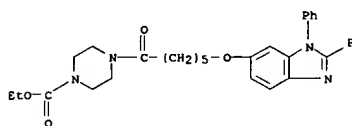
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



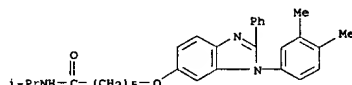
RN 350234-88-7 CAPLUS  
 CN Glycine, N-[6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-1-oxohexyl]-N-methyl-, ethyl ester (9CI) (CA INDEX NAME)



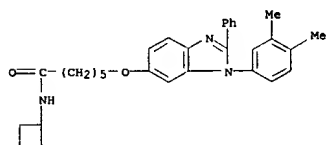
RN 350234-89-8 CAPLUS  
 CN 1-Piperazinecarboxylic acid, 4-[6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-1-oxohexyl]-, ethyl ester (9CI) (CA INDEX NAME)



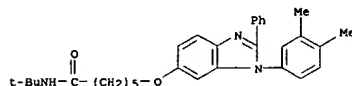
RN 350234-90-1 CAPLUS  
 CN Hexanamide, 6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-N-(1-methylethyl)- (9CI) (CA INDEX NAME)



L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

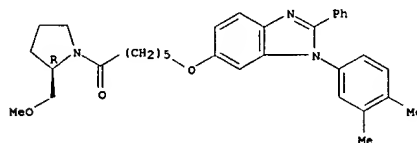


RN 350234-96-7 CAPLUS  
 CN Hexanamide, N-(1,1-dimethylethyl)-6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

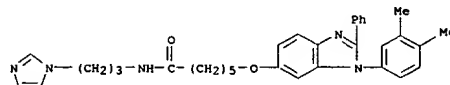


RN 350234-97-8 CAPLUS  
 CN Pyrrolidine, 1-[6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-1-oxohexyl]-2-(methoxymethyl)-, (2R)- (9CI) (CA INDEX NAME)

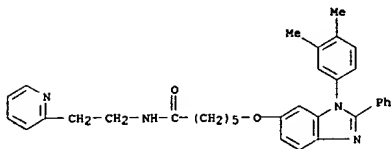
Absolute stereochemistry.



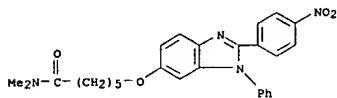
RN 350234-98-9 CAPLUS  
 CN Hexanamide, 6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-N-[3-(1H-imidazol-1-yl)propyl]- (9CI) (CA INDEX NAME)



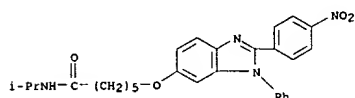
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 350234-99-0 CAPLUS  
 CN Hexanamide,  
 6-[[1-(3,4-dimethylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-  
 N-[2-(2-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



RN 350235-00-6 CAPLUS  
 CN Hexanamide,  
 N,N-dimethyl-6-[[2-(4-nitrophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

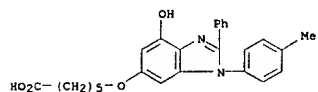


RN 350235-01-7 CAPLUS  
 CN Hexanamide, N-[1-methylethyl]-6-[[2-(4-nitrophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

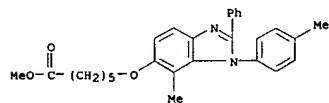


RN 350235-02-8 CAPLUS  
 CN Hexanamide, N-(3-methylbutyl)-6-[[2-(4-nitrophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

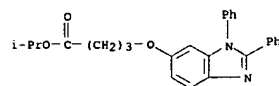
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



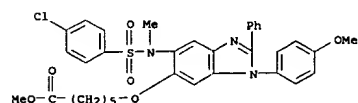
RN 350235-18-6 CAPLUS  
 CN Hexanoic acid,  
 6-[[7-methyl-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 350238-47-0 CAPLUS  
 CN Butanoic acid, 4-[[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, 1-methylethyl ester (9CI) (CA INDEX NAME)

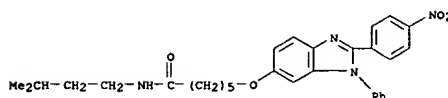


RN 350238-48-1 CAPLUS  
 CN Hexanoic acid, 6-[[5-[[[(4-chlorophenyl)sulfonyl]methylamino]-1-(4-methoxyphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

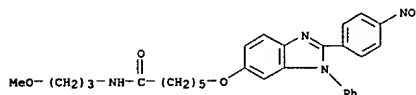


IT 117125-04-9 166396-81-2 166396-80-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of 1,2-diarylbenzimidazolealkanoates and analogs for  
 treatment of disorders mediated by microglia activation)  
 RN 117125-04-9 CAPLUS

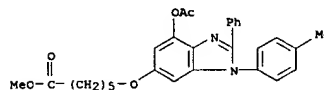
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



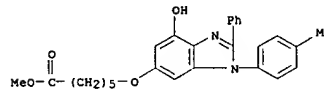
RN 350235-03-9 CAPLUS  
 CN Hexanamide, N-(3-methoxypropyl)-6-[[2-(4-nitrophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



RN 350235-15-3 CAPLUS  
 CN Hexanoic acid, 6-[[4-(acetyloxy)-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

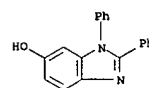


RN 350235-16-4 CAPLUS  
 CN Hexanoic acid,  
 6-[[4-hydroxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

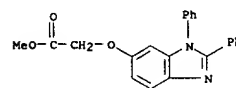


RN 350235-17-5 CAPLUS  
 CN Hexanoic acid,  
 6-[[4-hydroxy-1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

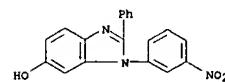
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 166396-81-2 CAPLUS  
 CN Acetic acid, [[1,2-diphenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

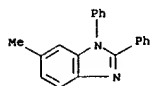


RN 166396-88-9 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(3-nitrophenyl)-2-phenyl- (9CI) (CA INDEX NAME)

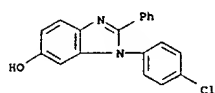


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 350236-00-9P 350236-01-0P 350236-02-1P  
 350238-49-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of 1,2-diarylbenzimidazolealkanoates and analogs for  
 treatment of disorders mediated by microglia activation)

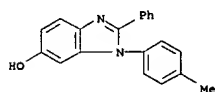
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 86318-02-7 CAPLUS  
 CN 1H-Benzimidazole, 6-methyl-1,2-diphenyl- (9CI) (CA INDEX NAME)



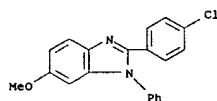
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 CN 1H-Benzimidazol-6-ol, 1-(4-chlorophenyl)-2-phenyl- (9CI) (CA INDEX NAME)



RN 117125-08-3 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(4-methylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)

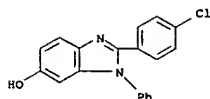


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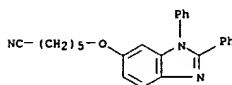


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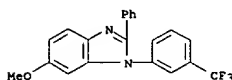
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



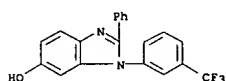
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 CN Hexanenitrile, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)



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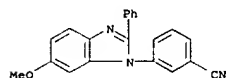


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 CN 1H-Benzimidazol-6-ol, 2-phenyl-1-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

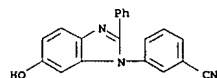


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 CN Benzonitrile, 3-(6-methoxy-2-phenyl-1H-benzimidazol-1-yl)- (9CI) (CA INDEX NAME)

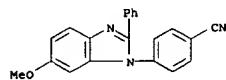
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



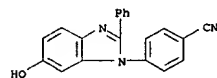
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 CN Benzonitrile, 3-(6-hydroxy-2-phenyl-1H-benzimidazol-1-yl)- (9CI) (CA INDEX NAME)



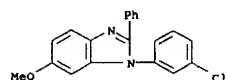
RN 350235-27-7 CAPLUS  
 CN Benzonitrile, 4-(6-methoxy-2-phenyl-1H-benzimidazol-1-yl)- (9CI) (CA INDEX NAME)



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 CN Benzonitrile, 4-(6-hydroxy-2-phenyl-1H-benzimidazol-1-yl)- (9CI) (CA INDEX NAME)

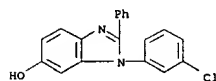


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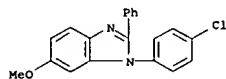


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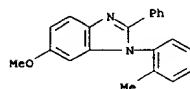
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



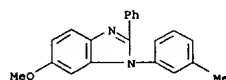
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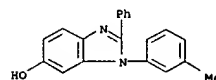
RN 350235-32-4 CAPLUS  
 CN 1H-Benzimidazole, 6-methoxy-1-(2-methylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)



RN 350235-35-7 CAPLUS  
 CN 1H-Benzimidazole, 6-methoxy-1-(3-methylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)

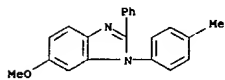


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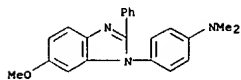


L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

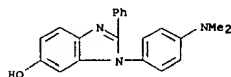
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 CN 1H-Benzimidazole, 6-methoxy-1-(4-methylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)



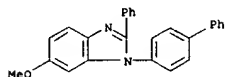
RN 350235-55-1 CAPLUS  
 CN Benzenamine, 4-(6-methoxy-2-phenyl-1H-benzimidazol-1-yl)-N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 350235-56-2 CAPLUS  
 CN 1H-Benzimidazole-6-ol, 1-[4-(dimethylamino)phenyl]-2-phenyl- (9CI) (CA INDEX NAME)



RN 350235-59-5 CAPLUS  
 CN 1H-Benzimidazole, 1-[1,1'-biphenyl]-4-yl-6-methoxy-2-phenyl- (9CI) (CA INDEX NAME)

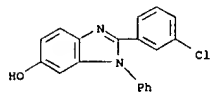


RN 350235-60-8 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-[1,1'-biphenyl]-4-yl-2-phenyl- (9CI) (CA INDEX NAME)

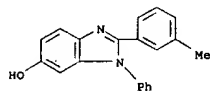


L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

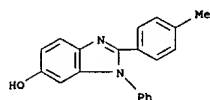
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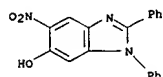
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 CN 1H-Benzimidazole, 6-methoxy-2-(4-methylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



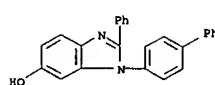
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 CN 1H-Benzimidazol-6-ol, 2-(4-methylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



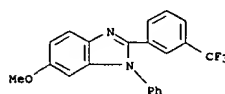
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 CN 1H-Benzimidazol-6-ol, 5-nitro-1,2-diphenyl- (9CI) (CA INDEX NAME)



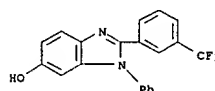
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



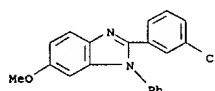
RN 350235-65-3 CAPLUS  
 CN 1H-Benzimidazole, 6-methoxy-1-phenyl-2-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 350235-66-4 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-phenyl-2-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 350235-67-5 CAPLUS  
 CN 1H-Benzimidazole, 2-(3-chlorophenyl)-6-methoxy-1-phenyl- (9CI) (CA INDEX NAME)

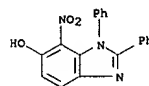


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 CN 1H-Benzimidazol-6-ol, 2-(3-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)

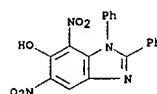


L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

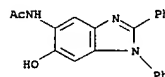
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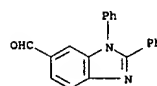
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 CN 1H-Benzimidazol-6-ol, 5,7-dinitro-1,2-diphenyl- (9CI) (CA INDEX NAME)



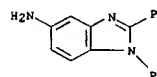
RN 350235-79-9 CAPLUS  
 CN Acetamide, N-(6-hydroxy-1,2-diphenyl-1H-benzimidazol-5-yl)- (9CI) (CA INDEX NAME)



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 CN 1H-Benzimidazole-6-carboxaldehyde, 1,2-diphenyl- (9CI) (CA INDEX NAME)

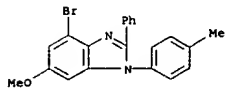


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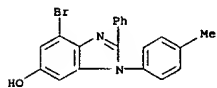


L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

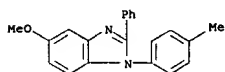
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 CN 1H-Benzimidazole, 4-bromo-6-methoxy-1-(4-methylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)



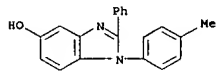
RN 350235-89-1 CAPLUS  
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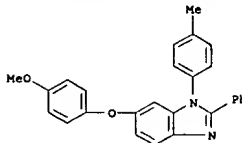


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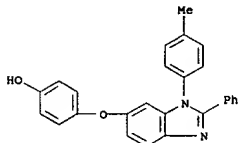


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 CN 1H-Benzimidazole, 6-(4-methoxyphenoxy)-1-(4-methylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)

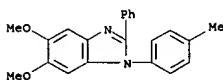
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



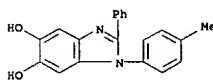
RN 350235-94-8 CAPLUS  
 CN Phenol, 4-((1-(4-methylphenyl)-2-phenyl-1H-benzimidazol-6-yl)oxy)- (9CI) (CA INDEX NAME)



RN 350235-95-9 CAPLUS  
 CN 1H-Benzimidazole, 5,6-dimethoxy-1-(4-methylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)

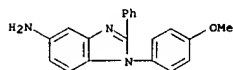


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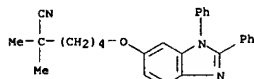


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 CN 1H-Benzimidazol-5-amine, 1-(4-methoxyphenyl)-2-phenyl- (9CI) (CA INDEX NAME)

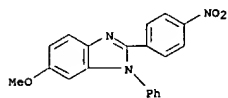
L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



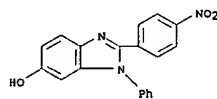
RN 350236-00-9 CAPLUS  
 CN Hexanenitrile, 6-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-2,2-dimethyl- (9CI) (CA INDEX NAME)



RN 350236-01-0 CAPLUS  
 CN 1H-Benzimidazole, 6-methoxy-2-(4-nitrophenyl)-1-phenyl- (9CI) (CA INDEX NAME)

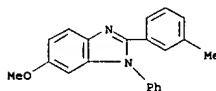


RN 350236-02-1 CAPLUS  
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RN 350238-49-2 CAPLUS  
 CN 1H-Benzimidazole, 6-methoxy-2-(3-methylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 23 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

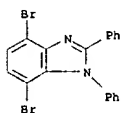
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L3 ANSWER 24 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
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 DOCUMENT NUMBER: 134:287964  
 TITLE: Organic compound for organic electroluminescence member  
 INVENTOR(S): Hosokawa, Chishio; Ikeda, Shuji  
 PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.  
 CODEN: JIQQAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001097949	A2	20010410	JP 1999-277956	19990930
PRIORITY APPLN. INFO.:			JP 1999-277956	19990930

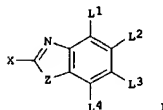
OTHER SOURCE(S): MARPAT 134:287964  
 AB The title organic compound is represented by  
 $[Ar_4Ar_5C=CR_1]s[(Ar_2)m(Ar_1)k(Ar_3)n]$   
 $w[R_2C=CAr_6Ar_7]t$  (Ar1 = divalent organic group; Ar2,3 = C6-30 arylene,  
 etc.;  
 Ar4-7 = C6-20 aryl, etc.; R1,2 = H, C1-6 alkyl, etc.; m, n, s, and t = 0,  
 1, 2). When the organic compound is used as a recombination site-forming  
 substance and a light-emitting material, the electroluminescence member  
 gives high efficiency and long lifetime.  
 IT 333432-31-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (organic compound for organic electroluminescence member)  
 RN 333432-31-8 CAPLUS  
 CN 1H-Benzimidazole, 4,7-dibromo-1,2-diphenyl- (9CI) (CA INDEX NAME)



L3 ANSWER 25 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2001:111259 CAPLUS  
 DOCUMENT NUMBER: 134:155302  
 TITLE: Rewritable blue-laser sensitive optical disk  
 INVENTOR(S): Ogiso, Akira; Tsukahara, Hiroshi; Nishimoto, Taizo;  
 Misawa, Tsutayoshi; Takuma, Keisuke  
 PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan; Yamamoto Chemicals Inc.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.  
 CODEN: JIQQAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

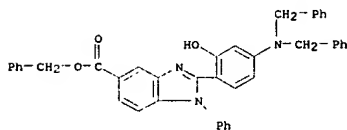
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001039034	A2	20010213	JP 1999-220067	19990803
PRIORITY APPLN. INFO.:			JP 1999-220067	19990803

OTHER SOURCE(S): MARPAT 134:155302  
 GI

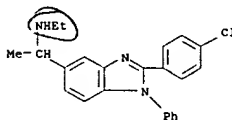


AB The title optical disk has a recording layer and a reflective layer on a  
 substrate, wherein the recording layer contains compound I (X = halo,  
 OH,  
 cyano, alkyl, aralkyl, aryl, etc.; L1-4 = H, halo, OH, cyano, alkyl,  
 aralkyl, etc.; Z = O, S). The optical disk shows the good writing/  
 reading characteristics using a 400-500 nm laser beam.  
 IT 324521-33-7  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (recording layer of rewritable blue-laser sensitive optical disk)  
 RN 324521-33-7 CAPLUS  
 CN 1H-Benzimidazole-5-carboxylic acid, 2-[4-(bis(phenylmethyl)amino)-2-  
 hydroxyphenyl]-1-phenyl-, phenylmethyl ester (9CI) (CA INDEX NAME)

L3 ANSWER 25 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

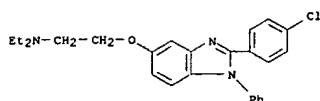


L3 ANSWER 26 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2000:297304 CAPLUS  
 DOCUMENT NUMBER: 133:202600  
 TITLE: A quantitative structure-activity relationship  
 analysis of some substituted oxazopyridines and  
 benzimidazoles with antiinflammatory activity  
 AUTHOR(S): Chakravarti, S. K.  
 CORPORATE SOURCE: Department of Pharmacy, Shri Govindram Seksaria  
 Institute of Technology and Science, Indore, 452003,  
 India  
 SOURCE: Indian Journal of Pharmaceutical Sciences (1999),  
 61(4), 206-212  
 CODEN: IJSDW; ISSN: 0250-474X  
 PUBLISHER: Indian Pharmaceutical Association  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The lowest energy conformations of some antiinflammatory 2-(substituted  
 phenyl)oxazopyridines, 2-(substituted pyridinyl) benzimidazoles and  
 1H-benzimidazoles were calculated and quant. structure-activity  
 relationship  
 anal. was then performed on each category of compds. using thermodyn.,  
 electronic and spatial descriptors. The resulting QSAR equations were  
 validated by leave-one-out cross validation method. Electronic parameter  
 (dipole moment) and spatial parameters (mol. volume and principal moment  
 of  
 inertia) were found to have significant correlation with antiinflammatory  
 activity.  
 IT 175714-03-1 289893-74-9 289893-75-0  
 289893-76-1  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological  
 study, unclassified); THU (Therapeutic use); BIOL (Biological study);  
 USES  
 (Uses)  
 (QSAR of substituted oxazopyridines and benzimidazoles with  
 antiinflammatory activity)  
 RN 175714-03-1 CAPLUS  
 CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-N-ethyl-N-methyl-  
 1-phenyl- (9CI) (CA INDEX NAME)

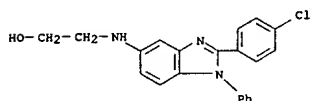


RN 289893-74-9 CAPLUS  
 CN Ethanamine,  
 2-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]oxy]-N,N-  
 diethyl- (9CI) (CA INDEX NAME)

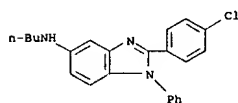
L3 ANSWER 26 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 289893-75-0 CAPLUS  
 CN Ethanol, 2-[[2-[(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]amino]-  
 (9CI) (CA INDEX NAME)



RN 289893-76-1 CAPLUS  
 CN 1H-Benzimidazol-5-amine, N-butyl-2-(4-chlorophenyl)-1-phenyl- (9CI) (CA  
 INDEX NAME)



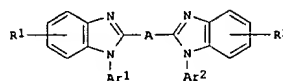
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L3 ANSWER 27 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:215999 CAPLUS  
 DOCUMENT NUMBER: 132:258111  
 TITLE: Benzimidazoles, their preparation, hole-transporting materials, electroluminescent devices, and electrophotographic photoreceptors thereof  
 INVENTOR(S): Ueda, Hideaki; Fujino, Yasumitsu; Furukawa, Keiichi  
 PATENT ASSIGNEE(S): Minolta Camera Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.  
 CODEN: JKOQAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

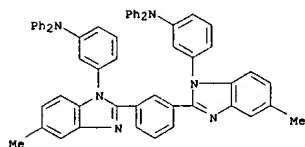
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000095766	A2	20000404	JP 1998-269595	19980924
PRIORITY APPLN. INFO.: JP 1998-269595				

OTHER SOURCE(S): MARPAT 132:258111  
 GI

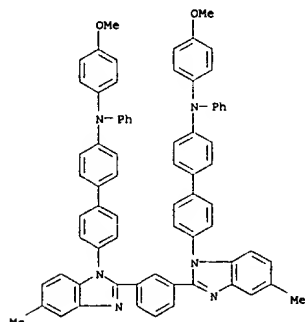


AB The benzimidazole compds. are shown as I (A = arylene, heterocyclic ring which may be linked: Ar1, Ar2 = aryl, heterocyclic ring; R1, R2 = H, alkyl, alkoxy, halo) and are prepared by reacting benzimidazoles II (A, R1, R2 = same as above) with halogens Ar1X and Ar2X (Ar1, Ar2 = same as above; X = halo). The hole-transporting materials for the electrophotog. photoreceptors comprise I and show excellent durability. The electroluminescent devices have  $\geq 1$  layer containing I.  
 IT 262434-53-7 262434-59-3 262434-64-0  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (preparation of benzimidazole deriva. for hole-transporting materials and electroluminescent devices and electrophotog. photoreceptors thereof)  
 RN 262434-53-7 CAPLUS  
 CN Benzenamine, 3,3'-[1,3-phenylenebis(5-methyl-1H-benzimidazole-2,1-diyl)]bis[N,N-diphenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 27 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

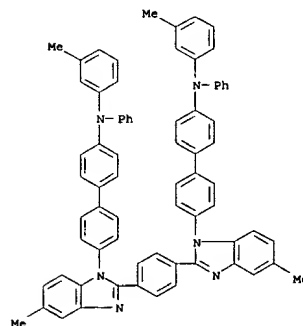


RN 262434-59-3 CAPLUS  
 CN [1,1'-Biphenyl]-4-amine, 4',4'''-[1,3-phenylenebis(5-methyl-1H-benzimidazole-2,1-diyl)]bis[N,N-diphenyl- (9CI) (CA  
 INDEX NAME)



RN 262434-64-0 CAPLUS  
 CN [1,1'-Biphenyl]-4-amine, 4',4'''-[1,3-phenylenebis(5-methyl-1H-benzimidazole-2,1-diyl)]bis[N,N-diphenyl- (9CI) (CA INDEX  
 NAME)

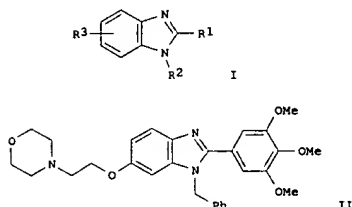
L3 ANSWER 27 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L3 ANSWER 28 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN  
 ACCESSION NUMBER: 1997:623154 CAPLUS  
 DOCUMENT NUMBER: 127:293221  
 TITLE: Methods of treating or preventing interstitial  
 cystitis using substituted benzimidazoles  
 INVENTOR(S): Iyengar, Sariti; Muhlhauser, Mark A.; Thor, Karl B.  
 PATENT ASSIGNEE(S): Eli Lilly and Company, USA; Iyengar, Sariti;  
 Muhlhauser, Mark A.; Thor, Karl B.  
 SOURCE: PCT Int. Appl., 121 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9733873	A1	19970918	WO 1997-US3895	19970307
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, KE, LS, MW, SD, SZ, UG, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2248013	AA	19970918	CA 1997-2248013	19970307
AU 9722078	A1	19971001	AU 1997-22078	19970307
JP 2000506529	T2	20000530	JP 1997-532805	19970307
US 6025379	A	20000215	US 1998-125956	19980825
			US 1996-13129P	P 19960311
PRIORITY APPLN. INFO.:			WO 1997-US3895	W 19970307

OTHER SOURCE(S): MARPAT 127:293221  
 GI



AB The invention provides methods for the treatment or prevention of interstitial cystitis or urethral syndrome using substituted

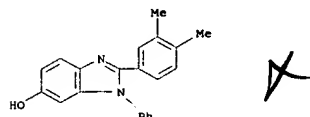
L3 ANSWER 29 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)  
 benzimidazoles I (R1, R2 = H, alkyl, alkoxy, (un)substituted Ph, cycloalkyl, naphthyl, heterocyclyl, phenylalkyl, heterocyclylalkoxy, etc.;  
 R3 = H, NO2, CF3, halo, alkanoyl, amino, alkyl, alkoxy, alkylthio, cycloalkyl, (un)substituted heterocyclyl, amino, aminoalkoxy, aminoalkyl, heterocyclylalkyl, heterocyclylalkoxy, etc.; only 1 or R1 and R2 may be

H) or their pharmaceutically acceptable salts or solvates. Approx. 170 synthetic examples of I are given, with the products serving as target compds. and/or intermediates. Use of specific preferred compds. contg. cyclic or acyclic amine sidechains is also claimed. For instance, etherification of 1-benzyl-2-(3,4,5-trimethoxyphenyl)-6-hydroxybenzimidazole-HCl (prepn. given) with 4-(2-chloroethyl)morpholine-HCl in acetone in the presence of K2CO3 gave preferred title compd. II. Methods for the bioassay and clin. evaluation of I are described (no data).

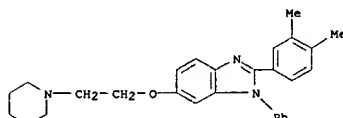
IT 175713-99-2P, 1-Phenyl-2-(3,4-dimethylphenyl)-6-hydroxybenzimidazole 175714-00-8P, 1-Phenyl-2-(3,4-dimethylphenyl)-6-[2-(piperidin-1-yl)ethoxy]benzimidazole 175714-02-0P, 1-Phenyl-2-(4-chlorophenyl)-6-methoxybenzimidazole 175714-04-2P, 1-Phenyl-2-(4-chlorophenyl)-5-[1-(ethylamino)ethyl]benzimidazole maleate 175714-05-3P, 1-Phenyl-2-(4-chlorophenyl)-6-chlorobenzimidazole 175714-07-5P, 1-Phenyl-2-(4-chlorophenyl)-5-nitrobenzimidazole 175714-08-6P, 1-Phenyl-2-(4-chlorophenyl)-6-[(2-hydroxyethyl)amino]benzimidazole 175714-10-0P, 1-Phenyl-2-(4-chlorophenyl)-5-[(1-aminoethyl)benzimidazole maleate 175714-11-1P, 1-Phenyl-2-(4-chlorophenyl)-6-(N-(isopropylcarbonyl)-N-butylamino]benzimidazole 175714-12-2P, 1-Phenyl-2-(4-chlorophenyl)-5-acetylbenzimidazole 175714-13-3P, 1-Phenyl-2-(4-chlorophenyl)-5-(2-hydroxyethyl)benzimidazole 175714-14-4P, 1-Phenyl-2-(4-chlorophenyl)-6-[2-(piperidin-1-yl)ethoxy]benzimidazole 175714-15-5P, 1-Phenyl-2-(4-chlorophenyl)-6-[3-(N,N-dimethylamino)propoxy]benzimidazole 175714-16-6P, 1-Phenyl-2-(4-hydroxyphenyl)-6-hydroxybenzimidazole hydrochloride  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (product and/or intermediate; preparation of benzimidazole derivs. for treatment of interstitial cystitis)

RN 175713-99-2 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 2-(3,4-dimethylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)

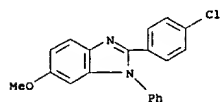
L3 ANSWER 28 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)



RN 175714-00-8 CAPLUS  
 CN 1H-Benzimidazole, 2-(3,4-dimethylphenyl)-1-phenyl-6-[2-(1-piperidinyl)ethoxy]- (9CI) (CA INDEX NAME)



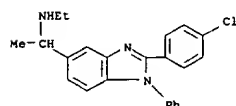
RN 175714-02-0 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-chlorophenyl)-6-methoxy-1-phenyl- (9CI) (CA INDEX NAME)



RN 175714-04-2 CAPLUS  
 CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-N-ethyl-α-methyl-1-phenyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 175714-03-1  
 CMF C23 H22 Cl N3

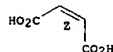


L3 ANSWER 28 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)

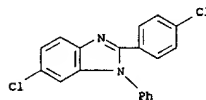
CM 2

CRN 110-16-7  
 CMF C4 H4 O4

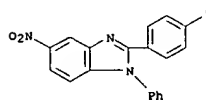
Double bond geometry as shown.



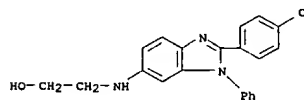
RN 175714-05-3 CAPLUS  
 CN 1H-Benzimidazole, 6-chloro-2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)



RN 175714-07-5 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-chlorophenyl)-5-nitro-1-phenyl- (9CI) (CA INDEX NAME)



RN 175714-08-6 CAPLUS  
 CN Ethanol, 2-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]amino]- (9CI) (CA INDEX NAME)

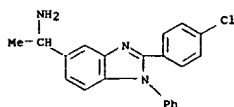


RN 175714-10-0 CAPLUS  
 CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-N-ethyl-α-methyl-1-phenyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

L3 ANSWER 28 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
(2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

(Continued)

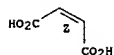
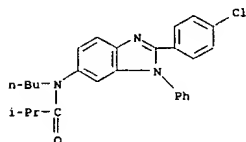
CM 1

CRN 175714-09-7  
CMF C21 H18 Cl N3

CM 2

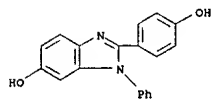
CRN 110-16-7  
CMF C4 H4 O4

Double bond geometry as shown.

RN 175714-11-1 CAPLUS  
CN Propanamide,  
N-butyl-N-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]-  
2-methyl- (9CI) (CA INDEX NAME)RN 175714-12-2 CAPLUS  
CN Ethanone, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]- (9CI)  
(CA INDEX NAME)

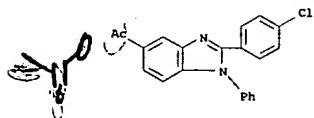
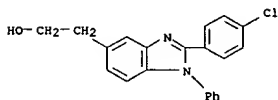
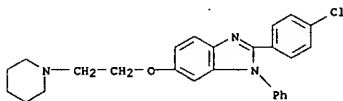
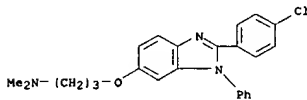
L3 ANSWER 28 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



● HCl

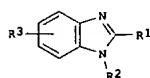
L3 ANSWER 28 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 175714-13-3 CAPLUS  
CN 1H-Benzimidazole, 2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)RN 175714-14-4 CAPLUS  
CN 1H-Benzimidazole, 2-(4-chlorophenyl)-1-phenyl-6-[2-(1-piperidinyl)ethoxy]-  
(9CI) (CA INDEX NAME)RN 175714-15-5 CAPLUS  
CN 1-Propanamine, 3-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-  
N,N-dimethyl- (9CI) (CA INDEX NAME)RN 175714-16-6 CAPLUS  
CN 1H-Benzimidazol-6-ol, 2-(4-hydroxyphenyl)-1-phenyl-, monohydrochloride  
(9CI) (CA INDEX NAME)

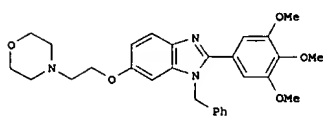
L3 ANSWER 29 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:594631 CAPLUS  
DOCUMENT NUMBER: 127:262677  
TITLE: Methods of treating or preventing sleep apnea using di- and trisubstituted benzimidazoles  
INVENTOR(S): Gitter, Bruce D.; Iyengar, Smriti  
PATENT ASSIGNEE(S): Eli Lilly and Co., USA; Gitter, Bruce D.; Iyengar, Smriti  
SOURCE: PCT Int. Appl., 117 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9731635	A1	19970904	WO 1997-US3113	19970226
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9721390	A1	19970916	AU 1997-21390	19970226
US 6030992	A	20000229	US 1998-142026	19980827
			US 1996-12665P	P 19960301
PRIORITY APPLN. INFO.:			WO 1997-US3113	W 19970226

OTHER SOURCE(S): MARPAT 127:262677  
GI

I



II

AB This invention provides methods for the treatment or prevention of sleep apnea (no data) using substituted benzimidazoles I (R1, R2 = H, alkyl, alkoxy, (un)substituted heterocyclyl, phenylalkoxy, phenylalkyldienyl, heterocyclylalkoxy, etc.; R3 = H, NO2, alkanoyl, alkyl, alkoxy, halo,

L3 ANSWER 29 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
(un)substituted amino, heterocyclyl, heterocyclalalkoxy, hydroxyalkyl,  
etc.; provided that both of R1 and R2 cannot be HJ and their  
pharmaceutically acceptable salts or solvates. Examples include 174  
syntheses of I, including both the preferred amine-contg. target compds.,  
and other compds. I serving primarily as intermediates. Eleven  
pharmaceutical formulations are also given. For instance, the  
intermediate compd. I.HCl (R1 = 3,4,5-trimethoxyphenyl; R2 = CH2Ph; R3 =  
6-OH) (prepd. in 3 steps from 4-amino-3-nitrophenol) was etherified with  
4-(2-chloroethyl)morpholine-HCl using K2CO3 in acetone to give a

preferred  
title compd., II.

IT 175713-99-2P

RL: BAC (Biological activity or effector, except adverse); BSU

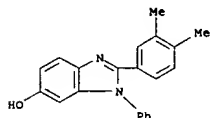
(Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT  
(Reactant or reagent); USES (Uses)

(drug and/or intermediate; preparation of benzimidazoles for

treatment or prevention of sleep apnea)

RN 175713-99-2 CAPLUS

CN 1H-Benzimidazol-6-ol, 2-(3,4-dimethylphenyl)-1-phenyl- (9CI) (CA INDEX  
NAME)



IT 175714-02-0P 175714-05-3P 175714-07-5P  
175714-12-2P 175714-13-3P 175714-16-6P  
196105-50-7P 196105-51-8P 196105-52-9P  
196105-53-0P

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
BIOL (Biological study); PREP (Preparation); USES (Uses)

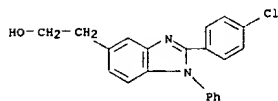
(drug and/or intermediate; preparation of benzimidazoles for

treatment or prevention of sleep apnea)

RN 175714-02-0 CAPLUS

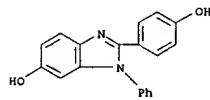
CN 1H-Benzimidazole, 2-(4-chlorophenyl)-6-methoxy-1-phenyl- (9CI) (CA INDEX  
NAME)

L3 ANSWER 29 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
NAME)



RN 175714-16-6 CAPLUS

CN 1H-Benzimidazol-6-ol, 2-(4-hydroxyphenyl)-1-phenyl-, monohydrochloride  
(9CI) (CA INDEX NAME)



• HCl

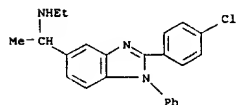
RN 196105-50-7 CAPLUS

CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-N-ethyl-α-methyl-  
1-phenyl-, (2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 175714-03-1

CMF C23 H22 Cl N3



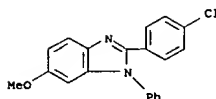
CM 2

CRN 110-16-7

CMF C4 H4 O4

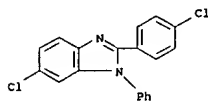
Double bond geometry as shown.

L3 ANSWER 29 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



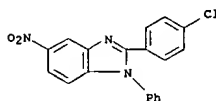
RN 175714-05-3 CAPLUS

CN 1H-Benzimidazole, 6-chloro-2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX  
NAME)



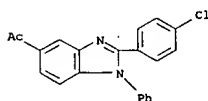
RN 175714-07-5 CAPLUS

CN 1H-Benzimidazole, 2-(4-chlorophenyl)-5-nitro-1-phenyl- (9CI) (CA INDEX  
NAME)



RN 175714-12-2 CAPLUS

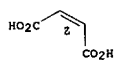
CN Ethanone, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]- (9CI)  
(CA INDEX NAME)



RN 175714-13-3 CAPLUS

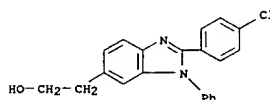
CN 1H-Benzimidazole-5-ethanol, 2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX  
NAME)

L3 ANSWER 29 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 196105-51-8 CAPLUS

CN 1H-Benzimidazole-6-ethanol, 2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX  
NAME)



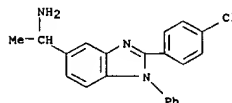
RN 196105-52-9 CAPLUS

CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-α-methyl-1-phenyl-,  
(2Z)-2-butenedioate (9CI) (CA INDEX NAME)

CM 1

CRN 175714-09-7

CMF C21 H18 Cl N3

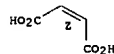


CM 2

CRN 110-16-7

CMF C4 H4 O4

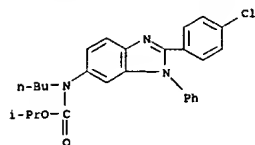
Double bond geometry as shown.



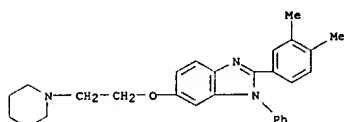
RN 196105-53-0 CAPLUS

CN Carbanic acid, butyl[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]-,  
1-methylethyl ester (9CI) (CA INDEX NAME)

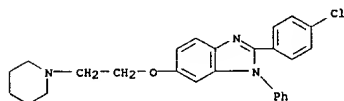
L3 ANSWER 29 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 175714-00-8P 175714-14-4P 175714-15-5P  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug: preparation of benzimidazoles for treatment or prevention of  
 sleep apnea)  
 RN 175714-00-8 CAPLUS  
 CN 1H-Benzimidazole, 2-(3,4-dimethylphenyl)-1-phenyl-6-[(2-(1-piperidinyl)ethoxy)]- (9CI) (CA INDEX NAME)



RN 175714-14-4 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-chlorophenyl)-1-phenyl-6-[(2-(1-piperidinyl)ethoxy)]- (9CI) (CA INDEX NAME)

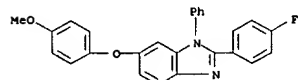


RN 175714-15-5 CAPLUS  
 CN 1-Propanamine, 3-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)

L3 ANSWER 30 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

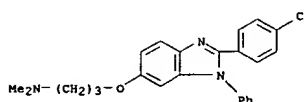
ACCESSION NUMBER: 1996:623266 CAPLUS  
 DOCUMENT NUMBER: 125:329613  
 TITLE: Poly(aryl ether benzimidazoles)  
 AUTHOR(S): Twieg, R.; Matray, T.; Hedrick, J. L.  
 CORPORATE SOURCE: Almaden Research Center, IBM Research Division, San Jose, CA, 95120-6099, USA  
 SOURCE: Macromolecules (1996), 29(23), 7335-7341  
 CODEN: MAMOBX; ISSN: 0024-9297  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A method for preparing poly(aryl ether benzimidazoles) was developed in which the generation of an ether linkage is the polymer-forming reaction. An appropriately substituted dihalo benzimidazole, 2,2'-bis(4-(4-fluorophenyl)-6,6'-bibenzimidazole, was prepared and polymerized with bisphenols in aprotic dipolar solvents in the presence of K<sub>2</sub>CO<sub>3</sub>. High mol. weight polymers were obtained with T<sub>g</sub> 220-250°. The resulting polymers were processable from solution and showed good thermal stability. This method affords poly(benzimidazole) analogs of poly(ether imides) with many of the same desirable characteristics.

IT 175237-95-3P, 2-(4-Fluorophenyl)-6-(4-methoxyphenoxy)-1-phenylbenzimidazole  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; in preparation of aromatic polyether-polybenzimidazoles)  
 RN 175237-95-3 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-fluorophenyl)-6-(4-methoxyphenoxy)-1-phenyl- (9CI) (CA INDEX NAME)

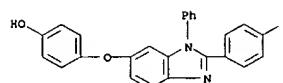


IT 183561-13-9P, 2-(4-Fluorophenyl)-6-(4-hydroxyphenoxy)-1-phenylbenzimidazole  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (monomer; in preparation of aromatic polyether-polybenzimidazoles)  
 RN 183561-13-9 CAPLUS  
 CN Phenol, 4-[[2-(4-fluorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

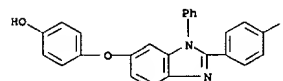
L3 ANSWER 29 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



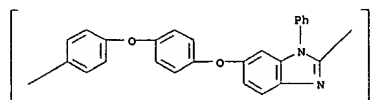
L3 ANSWER 30 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 183561-20-8P, 2-(4-Fluorophenyl)-6-(4-hydroxyphenoxy)-1-phenylbenzimidazole homopolymer 183561-21-9P, 2-(4-Fluorophenyl)-6-(4-hydroxyphenoxy)-1-phenylbenzimidazole homopolymer  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and properties of)  
 RN 183561-20-8 CAPLUS  
 CN Phenol, 4-[[2-(4-fluorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-, homopolymer (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 183561-13-9  
 CMF C25 H17 F N2 O2



RN 183561-21-9 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,6-diyl)oxy-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 31 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1996:575401 CAPLUS  
 DOCUMENT NUMBER: 125:223331  
 TITLE: Estimation of glass transition temperatures of poly(N-phenylbenzimidazole) polymers  
 AUTHOR(S): Rajulu, A. Varada; Reddy, R. Lakshminarayana  
 CORPORATE SOURCE: Dep. Polymer Sci. Technol., Sri Krishnadevaraya Univ.,

SOURCE: Anantapur, 515 003, India  
 Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1996), 35B(10), 1107-1109  
 CODEN: IJSBDB; ISSN: 0376-4699  
 PUBLISHER: Publications & Information Directorate, CSIR  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

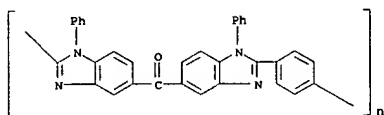
AB The glass transition temps. of several poly(N-phenylbenzimidazole) polymers were estimated using two semi-empirical formula based on group contribution method. The estimated values were compared with the exptl. values. The values estimated using the equation proposed by Askadskii

formula are closer to the exptl. values than those estimated with the equation proposed by Van Krevelen.

IT 115490-01-2 115490-02-3 115490-03-4  
 115490-04-5 115490-05-6 115515-37-2  
 181624-20-4 181624-22-6 181624-24-8

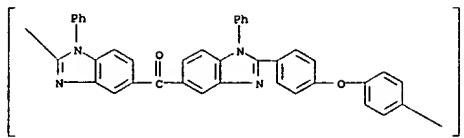
RL: FRP (Properties)  
 (estimation of glass transition temps. of poly(phenylbenzimidazole) polymers)

RN 115490-01-2 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)carbonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

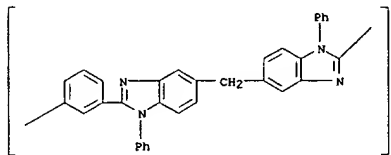


RN 115490-02-3 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)carbonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

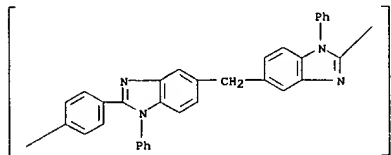
L3 ANSWER 31 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 115490-03-4 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)methylene(1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene] (9CI) (CA INDEX NAME)

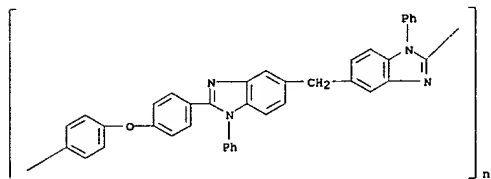


RN 115490-04-5 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)methylene(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

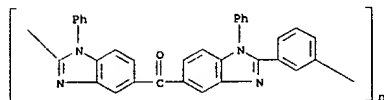


RN 115490-05-6 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)methylene(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

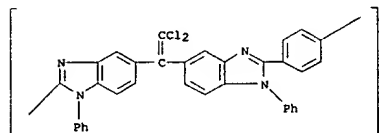
L3 ANSWER 31 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 115515-37-2 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)carbonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene] (9CI) (CA INDEX NAME)

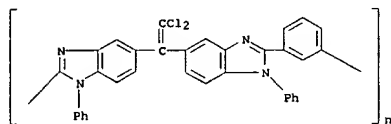


RN 181624-20-4 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)(dichloroethenylidene)(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

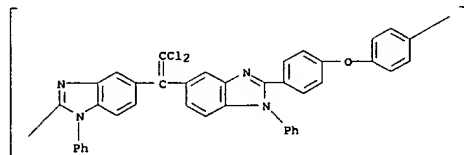


RN 181624-22-6 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)(dichloroethenylidene)(1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene] (9CI) (CA INDEX NAME)

L3 ANSWER 31 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 181624-24-8 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)(dichloroethenylidene)(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)



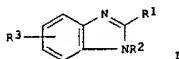
*D*

L3 ANSWER 32 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1996:563632 CAPLUS  
 DOCUMENT NUMBER: 125:300996  
 TITLE: Preparation of benzimidazoles useful for treating physiological disorders associated with  $\beta$ -amyloid peptide  
 INVENTOR(S): Lunn, William H. W.; Monn, James A.; Zimmerman, Dennis  
 PATENT ASSIGNEE(S): Eli Lilly and Company, USA  
 SOURCE: U.S., 30 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5552426	A	19960903	US 1994-235400	19940429

PRIORITY APPLM. INFO.: US 1994-235400 19940429

OTHER SOURCE(S): MARPAT 125:300996  
 GI



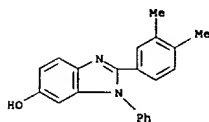
AB The title compds. [I; R1 = H, alkoxy, (un)substituted alkyl, (un)substituted Ph, (un)substituted naphthyl, (un)substituted cycloalkyl; R2 = H, alkyl, alkoxy, (un)substituted Ph, (un)substituted naphthyl, etc.; R3 = H, alkanoyl, amino, alkyl, cycloalkyl, halogen, alkylthio, CF3, etc.]

(e.g., 1-phenyl-2-[3,4-dimethylphenyl]-6-[2-(1-piperidinyl)ethoxy]benzimidazole), which are useful in treating or preventing conditions associated with  $\beta$ -amyloid peptide (e.g., Alzheimer's disease, Down's syndrome, etc.), are prepared and I-containing formulations presented.

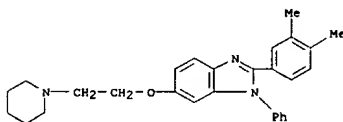
IT 175713-99-2P 175714-00-8P 175714-02-0P  
 175714-04-2P 175714-05-3P 175714-07-5P  
 175714-08-6P 175714-10-0P 175714-11-1P  
 175714-12-2P 175714-13-3P 175714-14-4P  
 175714-15-5P 175714-16-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of benzimidazoles useful for treating physiol. disorders associated with  $\beta$ -amyloid peptide)

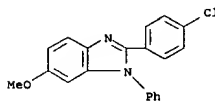
L3 ANSWER 32 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 175713-99-2 CAPLUS  
 CN 1H-Benzimidazol-6-yl, 2-(3,4-dimethylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



RN 175714-00-8 CAPLUS  
 CN 1H-Benzimidazole, 2-(3,4-dimethylphenyl)-1-phenyl-6-[2-(1-piperidinyl)ethoxy]- (9CI) (CA INDEX NAME)



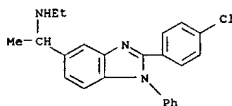
RN 175714-02-0 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-chlorophenyl)-6-methoxy-1-phenyl- (9CI) (CA INDEX NAME)



RN 175714-04-2 CAPLUS  
 CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-N-ethyl- $\alpha$ -methyl-1-phenyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

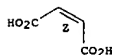
CM 1  
 CRN 175714-03-1  
 CMF C23 H22 Cl N3

L3 ANSWER 32 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

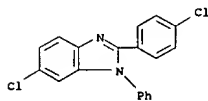


CM 2  
 CRN 110-16-7  
 CMF C4 H4 O4

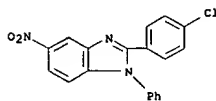
Double bond geometry as shown.



RN 175714-05-3 CAPLUS  
 CN 1H-Benzimidazole, 6-chloro-2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)

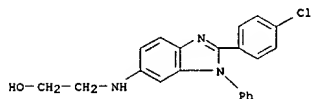


RN 175714-07-5 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-chlorophenyl)-5-nitro-1-phenyl- (9CI) (CA INDEX NAME)



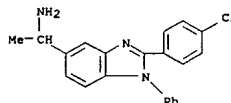
RN 175714-08-6 CAPLUS  
 CN Ethanol, 2-[(2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl)amino]- (9CI) (CA INDEX NAME)

L3 ANSWER 32 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



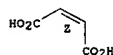
RN 175714-10-0 CAPLUS  
 CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)- $\alpha$ -methyl-1-phenyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1  
 CRN 175714-09-7  
 CMF C21 H18 Cl N3



CM 2  
 CRN 110-16-7  
 CMF C4 H4 O4

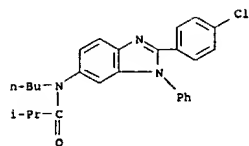
Double bond geometry as shown.



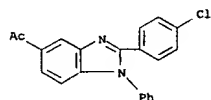
RN 175714-11-1 CAPLUS  
 CN Propanamide, N-butyl-N-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]-2-methyl- (9CI) (CA INDEX NAME)



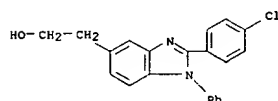
L3 ANSWER 32 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 175714-12-2 CAPLUS  
 CN Ethanone, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]- (9CI)  
 (CA INDEX NAME)

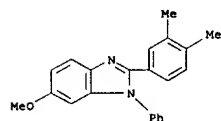


RN 175714-13-3 CAPLUS  
 CN 1H-Benzimidazole-5-ethanol, 2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)

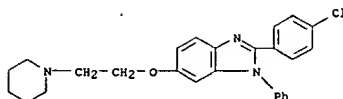


RN 175714-14-4 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-chlorophenyl)-1-phenyl-6-[2-(1-piperidinyl)ethoxy]- (9CI) (CA INDEX NAME)

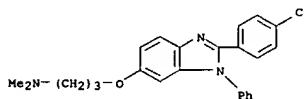
L3 ANSWER 32 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



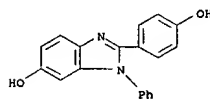
L3 ANSWER 32 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 175714-15-5 CAPLUS  
 CN 1H-Benzimidazole-6-ol, 2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)



RN 175714-16-6 CAPLUS  
 CN 1H-Benzimidazole-6-ol, 2-(4-hydroxyphenyl)-1-phenyl-, monohydrochloride (9CI) (CA INDEX NAME)

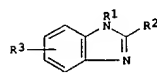


● HCl

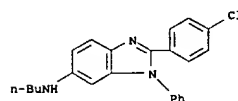
IT 182742-84-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of benzimidazoles useful for treating physiol. disorders associated with  $\beta$ -amyloid peptide)  
 RN 182742-84-3 CAPLUS  
 CN 1H-Benzimidazole, 2-(3,4-dimethylphenyl)-6-methoxy-1-phenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:515424 CAPLUS  
 DOCUMENT NUMBER: 125:247689  
 TITLE: Synthesis of a group of 1H-benzimidazoles and their screening for antiinflammatory activity  
 Evans, D.; Hicks, T. A.; Williamson, W. R. N.; Dawson, W.; Meacock S. C. R.; Kitchen, E. A.  
 CORPORATE SOURCE: Organic Chem. Dep., Lilly Res. Centre, Ltd., Surrey, GU20 6PH, UK  
 SOURCE: European Journal of Medicinal Chemistry (1996), 31(7-8), 635-642  
 CODEN: EJMCA5; ISSN: 0223-5234  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI

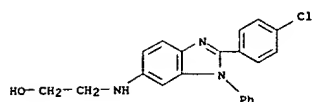


AB 1H-Benzimidazoles, e.g., I [R1 = H, Me, Ph, etc., R2 = 4-ClC6H4, 4-HOC6H4, H, etc., R3 = 5(6)-MeO, 7-OEt, 7-OH, 5-Cl, 5-N-pyrrolidinoethoxy, etc.], were prepared and tested for antiinflammatory activity.  
 IT 182060-46-4P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (preparation and antiinflammatory activity of benzimidazoles)  
 RN 182060-46-4 CAPLUS  
 CN 1H-Benzimidazol-6-amine, N-butyl-2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)



IT 175714-08-6P 175714-10-0P 182060-25-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation and antiinflammatory activity of benzimidazoles)  
 RN 175714-08-6 CAPLUS  
 CN Ethanone, 2-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]amino]- (9CI) (CA INDEX NAME)

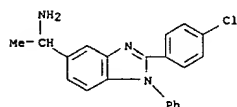
L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 175714-10-0 CAPLUS  
CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-α-methyl-1-phenyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

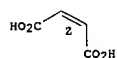
CRN 175714-09-7  
CMF C21 H18 Cl N3



CM 2

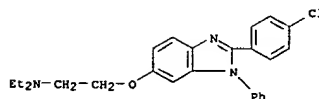
CRN 110-16-7  
CMF C4 H4 O4

Double bond geometry as shown.



RN 182060-25-9 CAPLUS  
CN Ethanamine, 2-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-N,N-diethyl-, dihydrochloride (9CI) (CA INDEX NAME)

L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



● 2 HCl

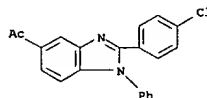
IT 175714-12-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and antiinflammatory activity of benzimidazoles)

RN 175714-12-2 CAPLUS

CN Ethanone, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]- (9CI)

(CA INDEX NAME)



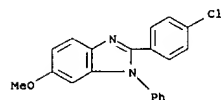
IT 175714-02-0P 175714-04-2P 175714-05-3P  
175714-07-5P 175714-11-1P 175714-14-4P  
175714-15-5P 175714-16-6P 182060-18-0P  
182060-22-6P 182060-29-3P 182060-37-3P  
182060-62-4P 182060-66-8P 182060-79-3P  
182060-86-2P 182060-89-5P 182060-92-0P  
182060-95-3P 182060-98-6P 182061-33-2P  
182061-35-4P 182061-37-6P 182061-40-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and antiinflammatory activity of benzimidazoles)

RN 175714-02-0 CAPLUS

CN 1H-Benzimidazole, 2-(4-chlorophenyl)-6-methoxy-1-phenyl- (9CI) (CA INDEX NAME)

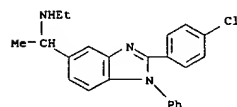
L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 175714-04-2 CAPLUS  
CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-N-ethyl-α-methyl-1-phenyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

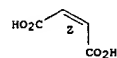
CRN 175714-03-1  
CMF C23 H22 Cl N3



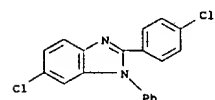
CM 2

CRN 110-16-7  
CMF C4 H4 O4

Double bond geometry as shown.

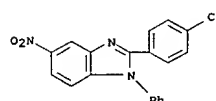


RN 175714-05-3 CAPLUS  
CN 1H-Benzimidazole, 6-chloro-2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)



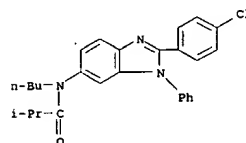
RN 175714-07-5 CAPLUS  
CN 1H-Benzimidazole, 2-(4-chlorophenyl)-5-nitro-1-phenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



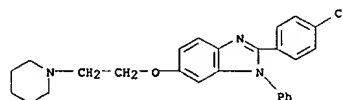
RN 175714-11-1 CAPLUS

CN Propanamide, N-butyl-N-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]-2-methyl- (9CI) (CA INDEX NAME)



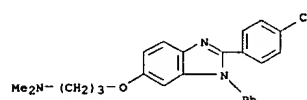
RN 175714-14-4 CAPLUS

CN 1H-Benzimidazole, 2-(4-chlorophenyl)-1-phenyl-6-[2-(1-piperidinyl)ethoxy]- (9CI) (CA INDEX NAME)

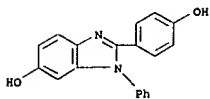


RN 175714-15-5 CAPLUS

CN 1-Propanamine, 3-[[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)

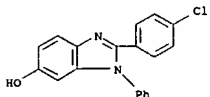


L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 175714-16-6 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 2-(4-hydroxyphenyl)-1-phenyl-, monohydrochloride  
 (9CI) (CA INDEX NAME)

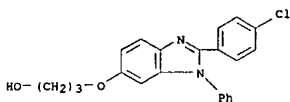


• HCl

RN 182060-18-0 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)

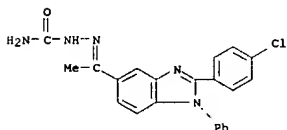


RN 182060-22-6 CAPLUS  
 CN 1-Propanol, 3-[(2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl)oxy]-  
 (9CI) (CA INDEX NAME)



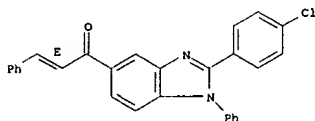
RN 182060-29-3 CAPLUS  
 CN 1H-Benzimidazole, 6-methoxy-2-(4-methoxyphenyl)-1-phenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 yl)ethylidene)- (9CI) (CA INDEX NAME)



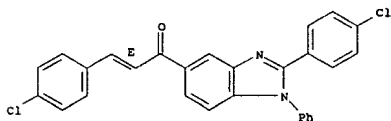
RN 182060-86-2 CAPLUS  
 CN 2-Propen-1-one, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]-3-  
 phenyl-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 182060-89-5 CAPLUS  
 CN 2-Propen-1-one, 3-(4-chlorophenyl)-1-[2-(4-chlorophenyl)-1-phenyl-1H-  
 benzimidazol-5-yl]-, (E)- (9CI) (CA INDEX NAME)

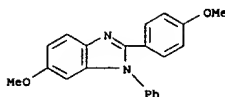
Double bond geometry as shown.



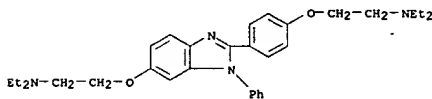
RN 182060-92-0 CAPLUS  
 CN 2-Propen-1-one, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]-3-  
 (3,4-dichlorophenyl)-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

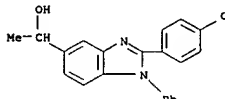
L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



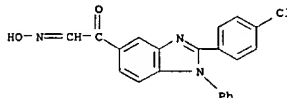
RN 182060-37-3 CAPLUS  
 CN Ethanamine, 2-[4-[6-[2-(diethylamino)ethoxy]-1-phenyl-1H-benzimidazol-2-  
 yl]phenoxy]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 182060-62-4 CAPLUS  
 CN 1H-Benzimidazole-5-methanol, 2-(4-chlorophenyl)-α-methyl-1-phenyl-  
 (9CI) (CA INDEX NAME)

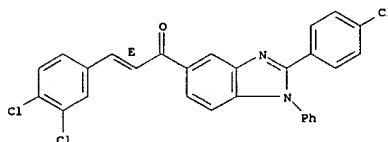


RN 182060-66-8 CAPLUS  
 CN 1H-Benzimidazole-5-acetaldehyde, 2-(4-chlorophenyl)-α-oxo-1-phenyl-,  
 aldoxime (9CI) (CA INDEX NAME)



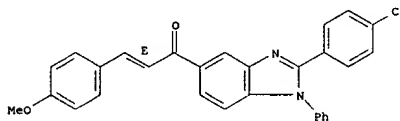
RN 182060-79-3 CAPLUS  
 CN Hydrazinecarboxamide, 2-[1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-  
 yl]ethylidene)- (9CI) (CA INDEX NAME)

L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



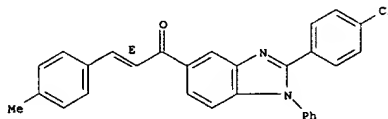
RN 182060-95-3 CAPLUS  
 CN 2-Propen-1-one, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]-3-(4-  
 methoxyphenyl)-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 182060-98-6 CAPLUS  
 CN 2-Propen-1-one, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]-3-(4-  
 methylphenyl)-, (E)- (9CI) (CA INDEX NAME)

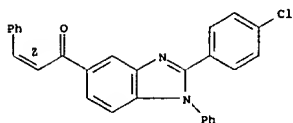
Double bond geometry as shown.



RN 182061-33-2 CAPLUS  
 CN 2-Propen-1-one, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]-3-  
 phenyl-, (Z)- (9CI) (CA INDEX NAME)

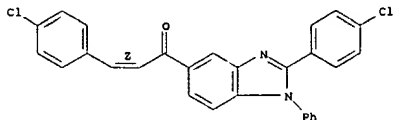
Double bond geometry as shown.

L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



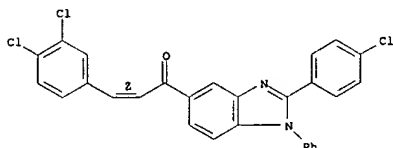
RN 182061-35-4 CAPLUS  
 CN 2-Propen-1-one, 3-(4-chlorophenyl)-1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 182061-37-6 CAPLUS  
 CN 2-Propen-1-one, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]-3-(3,4-dichlorophenyl)-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 182061-40-1 CAPLUS  
 CN 2-Propen-1-one, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]-3-(4-methoxyphenyl)-, (Z)- (9CI) (CA INDEX NAME)

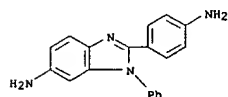
Double bond geometry as shown.

L3 ANSWER 34 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:514175 CAPLUS  
 DOCUMENT NUMBER: 125:196986  
 TITLE: An IR spectroscopic study of H-bonding and polymer-water and polymer-H-donor molecule interactions in polynaphthoylenimide derivatives  
 AUTHOR(S): Chenskaya, T. B.; Perov, N. S.; Ponomarev, I. I.  
 CORPORATE SOURCE: Russian Academy Science, Institute Synthetic Polymeric Materials, Russia  
 SOURCE: Journal of Molecular Structure (1996), 381(1-3, Horizons in Hydrogen Bond Research 1995), 149-156  
 CODEN: JMOSB4; ISSN: 0022-2860  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The processes of sorption-desorption of water, phenol and chlorophenol mols. and H/D isotope exchange in N-phenyl-substituted polynaphthoylenimidebenzimidazole (PNIBPH) and polynaphthoylenimides bearing various substituents in the diamine moiety (PNI) have been investigated by FTIR spectroscopy. Different types of water have been identified in PNIBPH and PNI. Phenol and chlorophenol, added to PNIBPH and PNI, compete with water mols. for H-bonding with CO and NR groups, and affect the H-bond network in polymers. A temperature anomaly has been observed in the IR spectra of PNIBPH and PNI, analogous to that reported earlier for PNIB, suggestive of a common nature of this effect.  
 IT 181189-61-7  
 RL: PRP (Properties) (hydrogen bonding, polymer-water, and polymer-hydrogen donor mol. interactions in polynaphthoylenimide derivs.)  
 RN 181189-61-7 CAPLUS  
 CN [2]Benzopyrano[6,5,4-def](2)benzopyran-1,3,6,8-tetrone, polymer with 2-(4-aminophenyl)-1-phenyl-1H-benzimidazol-6-amine (9CI) (CA INDEX NAME)

CM 1

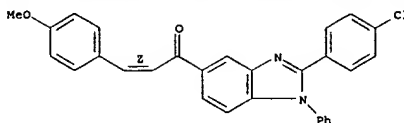
CRN 181189-60-6  
 CMF C19 H16 N4



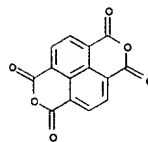
CM 2

CRN 81-30-1  
 CMF C14 H4 O6

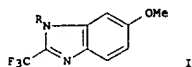
L3 ANSWER 33 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L3 ANSWER 34 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

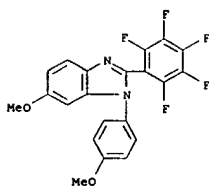


L3 ANSWER 35 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1996:290275 CAPLUS  
 DOCUMENT NUMBER: 125:10699  
 TITLE: Synthesis of 2-(Perfluoroalkyl)- and 2-(Perfluoroaryl)benzimidazoles by Oxidative Intramolecular Cyclization of Perfluoroalkyl and Aryl Imidamides  
 AUTHOR(S): Kobayashi, Masafumi; Uneyama, Kenji  
 CORPORATE SOURCE: Faculty of Engineering, Okayama University, Okayama, 700, Japan  
 SOURCE: Journal of Organic Chemistry (1996), 61(11), 3902-3905  
 CODEN: JOCEAH; ISSN: 0022-3263  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 125:10699  
 GI

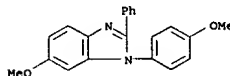


AB Oxidative intramol. cyclization of perfluoroalkyl and aryl imidamides and related compds. has been examined. Oxidation with CAN and electrochem. oxidation gave benzimidazoles in reasonable yields. E.g., electrooxidn. of 4-MeOC6H4NHC(CF3)NC6H4OMe-4 in MeCN gave benzimidazole I (R = 4-MeOC6H4) quant. In contrast, lead(IV) acetate oxidation gave the benzimidazole together with some benzoquinone imines and their acetals. Chlorination occurred predominantly on the aromatic ring by oxidation with t-Bu hypochlorite or NCS. The electrochem. oxidative cyclization to benzimidazoles can be applied to the corresponding alkyl, Ph, and pentafluorophenyl imidamides.  
 IT 177422-41-2P 177422-42-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of benzimidazoles by oxidative intramol. cyclization of imidamides)  
 RN 177422-41-2 CAPLUS  
 CN 1H-Benzimidazole, 6-methoxy-1-(4-methoxyphenyl)-2-(pentafluorophenyl)- (9CI) (CA INDEX NAME)

L3 ANSWER 35 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 177422-42-3 CAPLUS  
 CN 1H-Benzimidazole, 6-methoxy-1-(4-methoxyphenyl)-2-phenyl- (9CI) (CA INDEX NAME)



L3 ANSWER 36 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1996:252224 CAPLUS  
 DOCUMENT NUMBER: 124:289536  
 TITLE: Preparation of benzimidazole derivatives as non-peptide tachykinin receptor antagonists  
 INVENTOR(S): Burns, Robert Frederick, Jr.; Gitter, Bruce Donald; Monn, James Allen; Zimmerman, Dennis Michael  
 PATENT ASSIGNEE(S): Eli Lilly and Co., USA  
 SOURCE: Can. Pat. Appl., 143 pp.  
 CODEN: CPXKEB  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

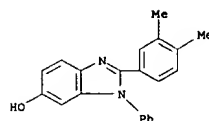
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2148053	AA	19951030	CA 1995-2148053	19950427
EP 694535	A1	19960131	EP 1995-302707	19950424
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
ZA 9503311	A	19961024	ZA 1995-3311	19950424
BR 9501770	A	19951121	BR 1995-1770	19950425
AU 9517656	A1	19951109	AU 1995-17656	19950426
CN 1113236	A	19951213	CN 1995-104725	19950426
HU 9501613	A	19951030	NO 1995-1613	19950427
FI 9502064	A	19951030	FI 1995-2064	19950428
NO 70637	A2	19951030	HU 1995-1249	19950428
JP 08109169	A2	19960430	JP 1995-105297	19950428
PRIORITY APPLN. INFO.:			US 1994-235401	A 19940429

OTHER SOURCE(S): CASREACT 124:289536; MARPAT 124:289536  
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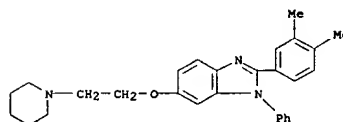
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. [I; R1, R2 = H, C1-C12 alkyl, C1-C6 alkoxy, etc.; R3 = H, NO2, C1-C6 alkanoyl, etc.], useful in treatment of CNS disorders, acute and chronic obstructive airway diseases, inflammatory diseases, allergies, cutaneous diseases, etc., were prepared and formulated. Condensation of 4,3-H2N(O2N)C6H3OH with 3,4,5-(MeO)3C6H2COCl in PhNMe2/PhMe followed by reaction of the intermediate II with PhCHO under H2 in the presence of Pd/C in DMF, cyclization of the intermediate III using POCl3/CHCl3, deprotection of the 6-OH group with 1N NaOH/THF and acidification with 1N HCl afforded 1.HCl [R1 = 3,4,5-(MeO)3C6H2; R2 = PhCH2; R3 = 6-OH] which showed IC50 of 1.130 μM against binding to human NK-1 receptor in cultured cell assays.  
 IT 175713-99-2P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of benzimidazole derivs. as non-peptide tachykinin receptor antagonists)  
 RN 175713-99-2 CAPLUS

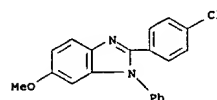
L3 ANSWER 36 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CN 1H-Benzimidazol-6-ol, 2-(3,4-dimethylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



IT 175714-00-8P 175714-02-0P 175714-04-2P  
 175714-05-3P 175714-07-5P 175714-08-6P  
 175714-10-0P 175714-11-1P 175714-12-2P  
 175714-13-3P 175714-14-4P 175714-15-5P  
 175714-16-6P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of benzimidazole derivs. as non-peptide tachykinin receptor antagonists)  
 RN 175714-00-8 CAPLUS  
 CN 1H-Benzimidazole, 2-(3,4-dimethylphenyl)-1-phenyl-6-[2-(1-piperidinyl)ethoxy]- (9CI) (CA INDEX NAME)



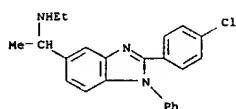
RN 175714-02-0 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-chlorophenyl)-6-methoxy-1-phenyl- (9CI) (CA INDEX NAME)



RN 175714-04-2 CAPLUS  
 CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-N-ethyl-α-methyl-1-phenyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

L3 ANSWER 36 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

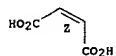
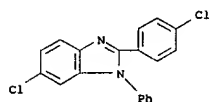
CM 1

CRN 175714-03-1  
CMF C23 H22 Cl N3

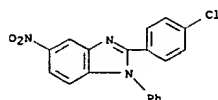
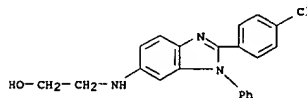
CM 2

CRN 110-16-7  
CMF C4 H4 O4

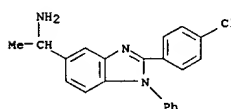
Double bond geometry as shown.

RN 175714-05-3 CAPLUS  
CN 1H-Benzimidazole, 6-chloro-2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)RN 175714-07-5 CAPLUS  
CN 1H-Benzimidazole, 2-(4-chlorophenyl)-5-nitro-1-phenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 36 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 175714-08-6 CAPLUS  
CN Ethanol, 2-[(2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]amino]- (9CI) (CA INDEX NAME)RN 175714-10-0 CAPLUS  
CN 1H-Benzimidazole-5-methanamine, 2-(4-chlorophenyl)-alpha-methyl-1-phenyl-, (2Z)-2-butenedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

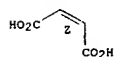
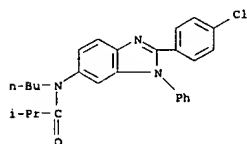
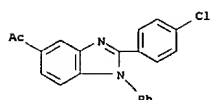
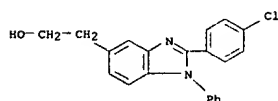
CRN 175714-09-7  
CMF C21 H18 Cl N3

CM 2

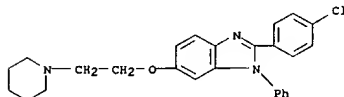
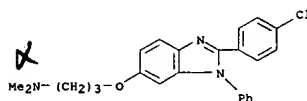
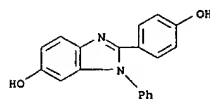
CRN 110-16-7  
CMF C4 H4 O4

Double bond geometry as shown.

L3 ANSWER 36 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

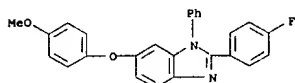
RN 175714-11-1 CAPLUS  
CN Propanamide, N-butyl-N-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]-2-methyl- (9CI) (CA INDEX NAME)RN 175714-12-2 CAPLUS  
CN Ethanone, 1-[2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-5-yl]- (9CI) (CA INDEX NAME)RN 175714-13-3 CAPLUS  
CN 1H-Benzimidazole-5-ethanol, 2-(4-chlorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)RN 175714-14-4 CAPLUS  
CN 1H-Benzimidazole, 2-(4-chlorophenyl)-1-phenyl-6-[2-(1-piperidinyl)ethoxy]- (9CI) (CA INDEX NAME)

L3 ANSWER 36 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

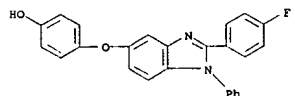
RN 175714-15-5 CAPLUS  
CN 1-Propanamine, 3-[(2-(4-chlorophenyl)-1-phenyl-1H-benzimidazol-6-yl]oxy]-N,N-dimethyl- (9CI) (CA INDEX NAME)RN 175714-16-6 CAPLUS  
CN 1H-Benzimidazole-6-ol, 2-(4-hydroxyphenyl)-1-phenyl-, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

L3 ANSWER 37 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1996:202456 CAPLUS  
 DOCUMENT NUMBER: 124:261890  
 TITLE: Poly(aryl ether benzazole)s. Self-polymerization of  
 AB monomers via benzimidazole-activated ether synthesis  
 AUTHOR(S): Matray, T. J.; Twieg, R. J.; Hedrick, James L.  
 CORPORATE SOURCE: Research Division, IBM Almaden Research Center, San  
 Jose, CA, 95120-6099, USA  
 SOURCE: ACS Symposium Series (1996), 624(Step-Growth Polymers  
 for High-Performance Materials), 266-75  
 CODEN: ACSMCS; ISSN: 0097-6156  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB 1-Phenyl-2-(4-(4-fluorophenyl)-5-(4-hydroxyphenoxy)benzimidazole was  
 synthesized in several steps and homopolym. to give a polyether. The  
 polymer had glass temperature about 240°.  
 IT 175237-95-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (intermediate; preparation and homopolym. of  
 1-phenyl-2-(4-(4-fluorophenyl)-5-(4-hydroxyphenoxy)benzimidazole)  
 RN 175237-95-3 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-(4-fluorophenyl)-6-(4-methoxyphenoxy)-1-phenyl- (9CI)  
 (CA INDEX NAME)



IT 148185-98-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (monomer; preparation and homopolym. of  
 1-phenyl-2-(4-(4-fluorophenyl)-5-(4-hydroxyphenoxy)benzimidazole)  
 RN 148185-98-2 CAPLUS  
 CN Phenol, 4-[(2-(4-fluorophenyl)-1-phenyl-1H-benzimidazol-5-yl)oxy]- (9CI)  
 (CA INDEX NAME)

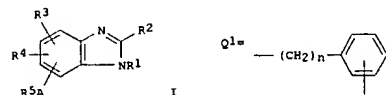


L3 ANSWER 38 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1995:737335 CAPLUS  
 DOCUMENT NUMBER: 123:143893  
 TITLE: Preparation of benzimidazoles as prostacyclin PGI2  
 mimetics.  
 INVENTOR(S): Kuhnke, Joachim; Eckle, Emil; Thierauch, Karl-Heinz;  
 Verhallen, Peter  
 PATENT ASSIGNEE(S): Schering A.-G., Germany  
 SOURCE: Ger. Offen. 4,330,959  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4330959	A1	19950316	DE 1993-4330959	19930909
WO 9507263	A1	19950316	WO 1994-EP2948	19940906

W: JP, US  
 RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 PRIORITY APPLN. INFO.: DE 1993-4330959 A 19930909

OTHER SOURCE(S): MARPAT 123:143893  
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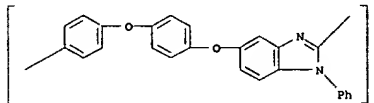
AB Title compds. [I; R1, R2 = (substituted) Ph, heteroaryl; R3, R4 = H,  
 halo,  
 alkyl, perfluoroalkyl, alkoxy, perfluoroalkoxy, carboxyl, alkoxy-carbonyl,  
 NO2, amino, etc.; A = bond, (O- or S-interrupted) alkylene, alkenylene,  
 alkynylene, Q1; n = 1-4; R5 = carboxyl, SO3H, PO3H2, tetrazolyl], were  
 prepared as PGI2 mimetics and TXA2/PGH2 antagonists useful in treating  
 thrombosis, arteriosclerosis, and hyperlipidemia (no data). Thus,  
 1,2-diphenyl-1H-benzimidazol-6-ol, MeO2CCH2Br, and K2CO3 were refluxed 3

h  
 in acetone to give Me [(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]acetate,  
 which was stirred 24 h in a mixture of aqueous NaOH, THF, and MeOH to  
 give [(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]acetic acid.

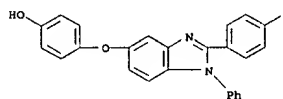
IT 166396-70-9P 166396-71-OP 166396-72-1P  
 166396-73-2P 166396-74-3P 166396-75-4P  
 166396-76-5P 166396-77-6P 166396-78-7P  
 166396-79-8P 166396-80-1P  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological  
 study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of benzimidazoles as prostacyclin PGI2 mimetics)  
 RN 166396-70-9 CAPLUS

L3 ANSWER 37 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

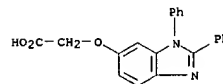
IT 148084-18-8P 148185-99-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and homopolym. of 1-phenyl-2-(4-(4-fluorophenyl)-5-(4-  
 hydroxyphenoxy)benzimidazole)  
 RN 148084-18-8 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)oxy-1,4-phenylene] (9CI) (CA INDEX NAME)



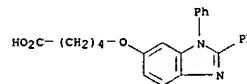
RN 148185-99-3 CAPLUS  
 CN Phenol, 4-[(2-(4-fluorophenyl)-1-phenyl-1H-benzimidazol-5-yl)oxy]-,  
 homopolymer (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 148185-98-2  
 CMF C25 H17 F N2 O2



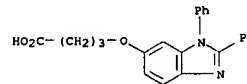
L3 ANSWER 38 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CN Acetic acid, [(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)



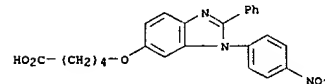
RN 166396-71-0 CAPLUS  
 CN Pentanoic acid, 5-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)



RN 166396-72-1 CAPLUS  
 CN Butanoic acid, 4-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)

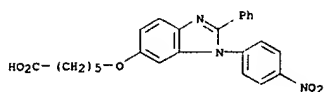


RN 166396-73-2 CAPLUS  
 CN Hexanoic acid, 6-[(1-(4-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)

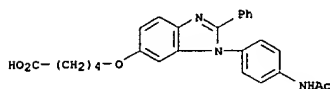


RN 166396-74-3 CAPLUS  
 CN Hexanoic acid, 6-[(1-(4-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl)oxy]- (9CI) (CA INDEX NAME)

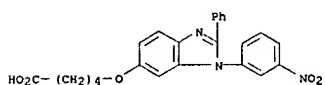
L3 ANSWER 38 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



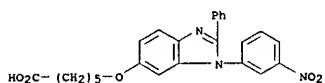
RN 166396-75-4 CAPLUS  
CN Pentanoic acid, 5-[[1-[4-(acetylamino)phenyl]-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



RN 166396-76-5 CAPLUS  
CN Pentanoic acid, 5-[[1-(3-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-  
(9CI) (CA INDEX NAME)

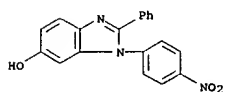


RN 166396-77-6 CAPLUS  
CN Hexanoic acid, 6-[[1-(3-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-  
(9CI) (CA INDEX NAME)

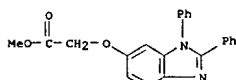


RN 166396-78-7 CAPLUS  
CN Pentanoic acid,  
5-[[[1-[3-[[[4-(chlorophenyl)sulfonyl]amino]phenyl]-2-phenyl-  
1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)

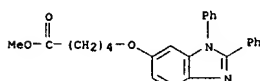
L3 ANSWER 38 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
CN 1H-Benzimidazol-6-ol, 1-(4-nitrophenyl)-2-phenyl- (9CI) (CA INDEX NAME)



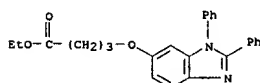
IT 166396-81-2P 166396-82-3P 166396-83-4P  
166396-84-5P 166396-85-6P 166396-86-7P  
166396-87-8P 166396-88-9P 166396-90-3P  
166396-91-4P 166396-92-5P 166396-93-6P  
166396-94-7P 166396-95-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation of benzimidazoles as prostacyclin PGI2 mimetics)  
RN 166396-81-2 CAPLUS  
CN Acetic acid, [[1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester  
(SCI)  
(CA INDEX NAME)



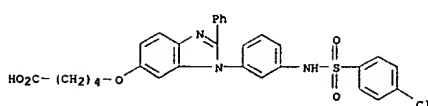
RN 166396-82-3 CAPLUS  
CN Pentanoic acid, 5-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, methyl ester  
(9CI) (CA INDEX NAME)



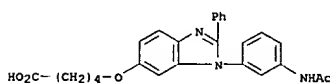
RN 166396-83-4 CAPLUS  
CN Butanoic acid, 4-[(1,2-diphenyl-1H-benzimidazol-6-yl)oxy]-, ethyl ester  
(9CI) (CA INDEX NAME)



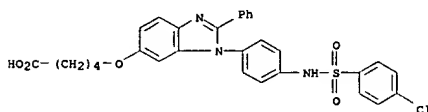
L3 ANSWER 38 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



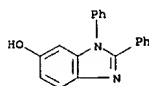
RN 166396-79-8 CAPLUS  
CN Pentanoic acid, 5-[[1-{3-(acetylamino)phenyl}-2-phenyl-1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



RN 166396-80-1 CAPLUS  
CN Pentanoic acid,  
5-[[1-[4-[[[4-(chlorophenyl)sulfonyl]amino]phenyl]-2-phenyl-  
1H-benzimidazol-6-yl]oxy]- (9CI) (CA INDEX NAME)



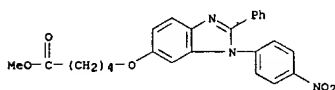
IT 117125-04-9 117125-05-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of benzimidazoles as prostacyclin PGI2 mimetics)  
RN 117125-04-9 CAPLUS  
CN 1H-Benzimidazol-6-ol, 1,2-diphenyl- (9CI) (CA INDEX NAME)



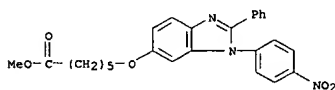
RN 117125-05-0 CAPLUS

L3 ANSWER 38 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

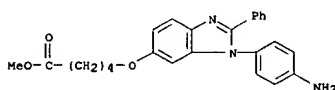
US 19639638-01 CARLOS COPRIGHT 2006 ACS ON SIN  
RN 166396-84-5 CAPLUS  
CN Pentanoic acid,  
5-[[1-(4-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-,  
methyl ester (9CI) (CA INDEX NAME)



RN 166396-85-6 CAPLUS  
CN Hexanoic acid, 6-[[1-(4-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

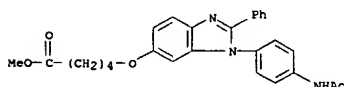


RN 166396-86-7 CAPLUS  
CN Pentanoic acid,  
5-[[1-(4-aminophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-,  
methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



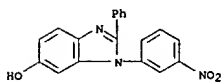
● HCl

RN 166396-87-8 CAPLUS  
CN Pentanoic acid, 5-([1-[4-(acetylamino)phenyl]-2-phenyl-1H-benzimidazol-6-yl]oxy)-, methyl ester (9CI) (CA INDEX NAME)

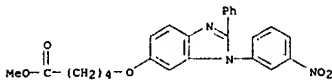




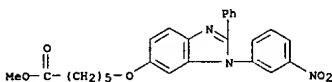
L3 ANSWER 38 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 166396-88-3 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(3-nitrophenyl)-2-phenyl- (9CI) (CA INDEX NAME)



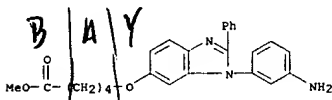
RN 166396-90-3 CAPLUS  
 CN Pentanoic acid, 5-[[1-(3-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 166396-91-4 CAPLUS  
 CN Hexanoic acid, 6-[[1-(3-nitrophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 166396-92-5 CAPLUS  
 CN Pentanoic acid, 5-[[1-(4-aminophenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

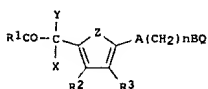


RN 166396-93-6 CAPLUS  
 CN Pentanoic acid, 5-[[1-(3-[[4-(4-chlorophenyl)sulfonyl]amino]phenyl)-2-phenyl-

L3 ANSWER 39 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 ACCESSION NUMBER: 1995:277045 CAPLUS  
 DOCUMENT NUMBER: 122:46487  
 TITLE: CAT-1 inhibitors, their synthesis, pharmaceutical compositions, and methods of use  
 INVENTOR(S): Guthrie, Robert W.; Mullin, John G., Jr.; Kachensky, David F.; Kierstead, Richard W.; Tilley, Jefferson W.;  
 Heathers, Guy P.; Higgins, Alan J.; Lemahieu, Ronald A.  
 PATENT ASSIGNEE(S): Hoffman-La Roche Inc., USA  
 SOURCE: U.S., 85 pp. Cont.-in-part of U.S. Ser. No. 698, 014, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

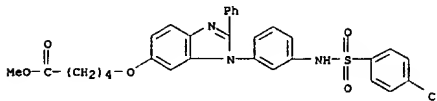
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5344843	A	19940906	US 1992-850620	19920313
RU 2059603	C1	19960510	RU 1992-5011784	19920131
EP 512352	A2	19921111	EP 1992-107135	19920427
EP 512352	A3	19930310		
EP 512352	B1	19960327		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
AT 136018	E	19960415	AT 1992-107135	19920427
AU 9216003	A1	19921112	AU 1992-16003	19920504
AU 653398	B2	19940929		
CA 2068076	AA	19921110	CA 1992-2068076	19920506
ZA 9203279	A	19930127	ZA 1992-3279	19920506
NO 9201840	A	19921110	NO 1992-1840	19920508
HU 63602	A2	19930928	HU 1992-1538	19920508
JP 05279353	A2	19931026	JP 1992-143375	19920508
JP 07107060	B4	19951115		
RO 109938	B1	19950728	RO 1992-622	19920508
BR 9201769	A	19921229	BR 1992-1769	19920511
			US 1991-698014	B2 19910509
			US 1992-850620	A 19920313

OTHER SOURCE(S): MARPAT 122:46487  
 GI

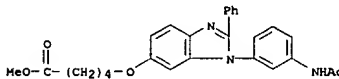


AB The invention relates to compds. I (R1 = OH; R2, R3 = H, alkyl, aryl, alkoxy, etc.; X, Y together = O, or one is amino and other is H; Z = S, CR2=CR2'; A = bond, O, S, SO, CHCH, etc.; B = bond, O, S, SO, etc.; Q =

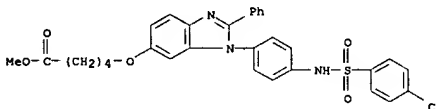
L3 ANSWER 38 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 166396-94-7 CAPLUS  
 CN Pentanoic acid, 5-[[1-(3-(acetylamino)phenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)



RN 166396-95-8 CAPLUS  
 CN Pentanoic acid, 5-[[1-(4-[[4-(4-chlorophenyl)sulfonyl]amino]phenyl)-2-phenyl-1H-benzimidazol-6-yl]oxy]-, methyl ester (9CI) (CA INDEX NAME)

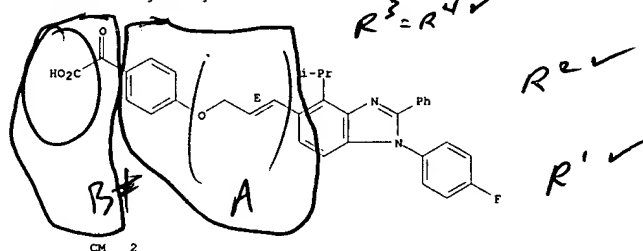


L3 ANSWER 39 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 Ph, cyclohexyl, pyridinyl, etc.; n = 1-6) and their pharmaceutically acceptable salts, and when appropriate, enantiomers, racemates, diastereomers or mixts. thereof or geometric isomer or mixts. thereof, and pharmaceutically acceptable salts thereof. The compds. inhibit carnitine acyltransferase 1 (CAT-1) and are therefore useful in the prevention of injury to ischemic tissue, and can limit infarct size, improve cardiac function and prevent arrhythmias during and following a myocardial infarction. 5-[[2-(2-Naphthalenyloxy)ethyl]oxy]-α-oxo-2-thiopheneacetic acid (prepn. given) inhibited CAT-1 with an IC50 = 0.05 μM. Tablet and capsule formulations contg. 4-[2-(2-naphthyloxy)ethoxy]-α-oxobenzeneacetic acid are presented.  
 IT 160062-17-9P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthesis and pharmaceutical compns. and use of carnitine acyltransferase inhibitor compds.)  
 RN 160062-17-9 CAPLUS  
 CN Benzeneacetic acid, 4-[[3-[[1-(4-fluorophenyl)-4-(1-methylethyl)-2-phenyl-1H-benzimidazol-5-yl]-2-propenyloxy]-α-oxo-, (E)-, compd. with morpholine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 160062-16-8  
 CMF C33 H27 F N2 O4

Double bond geometry as shown.



CM 2

CRN 110-91-8  
 CMF C4 H9 N O



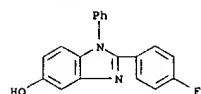
close art

L3 ANSWER 39 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

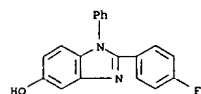
L3 ANSWER 40 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:603995 CAPLUS  
 DOCUMENT NUMBER: 119:203995  
 TITLE: Synthesis of polybenzimidazoles via aromatic nucleophilic substitution reactions of self-polymerizable (A-B) monomers  
 AUTHOR(S): Harris, Frank W.; Ahn, Byung H.; Cheng, Stephen Z. D.  
 CORPORATE SOURCE: Coll. Polym. Sci. Polym., Univ. Akron, Akron, OH, 44325-3909, USA  
 SOURCE: Polymer (1993), 34(14), 3083-95  
 CODEN: POLMAG; ISSN: 0032-3861  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Self-polymerizable (A-B) polybenzimidazole (PBI) monomers have been prepared and converted to PBIs via aromatic nucleophilic substitution reactions. Thus, 2-(4-fluorophenyl)-5-(6)-hydroxy-benzimidazole (I) and 2-(4-fluorophenyl)-5-hydroxy-1-phenylbenzimidazole (II) have been prepared and polymerized at 230-250° in N-cyclohexyl-2-pyrrolidinone containing potassium carbonate. The imidazole ring in these monomers activated the atom for nucleophilic displacement by the phenate ion. The resulting polymers were soluble in N-methyl-2-pyrrolidinone (NMP) and had intrinsic viscosities that ranged from 0.6 to 2.6 dL g<sup>-1</sup> (NMP at 30°). The PBI obtained from I was semicryst. with a glass transition temperature of 365°, while the poly(N-phenylbenzimidazole) (III) obtained from II was amorphous with a Tg of 278°. Thin films of the III polymer were tough and flexible, having tensile strength as high as 100 mPa, while those of the PBI polymer were brittle. The PBI retained 95% of its weight to 460° when subjected to thermogravimetric anal. (TGA) in air, while the III retained 95% of its weight to 535° under the same conditions. In order to lower the Tg and also to improve the mech. properties of the PBI, II was copolyd. with I. The Tg values of the copolymers decreased from 342° to 256° as their II content increased from 25 to 75 mol%, while the tensile strengths of thin films of the copolymers increased with increasing II content. Random copolymers were also prepared from a self-polymerizable poly(phenylquinoxaline) monomer and I.  
 IT 150773-65-2P 150773-66-3P 150811-45-3P  
 RL: PREP (Preparation); SPN (Synthetic preparation); PREP (Preparation) (preparation and crystallinity and thermal properties of)  
 RN 150773-65-2 CAPLUS  
 CN 1H-Benzimidazol-5-ol, 2-(4-fluorophenyl)-1-phenyl-, homopolymer (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 150772-74-0  
 CMF C19 H13 F N2 O

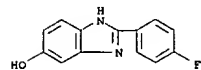
L3 ANSWER 40 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



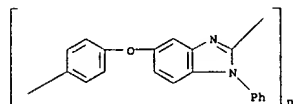
RN 150773-66-3 CAPLUS  
 CN 1H-Benzimidazol-5-ol, 2-(4-fluorophenyl)-1-phenyl-, polymer with 2-(4-fluorophenyl)-1H-benzimidazol-5-ol (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 150772-74-0  
 CMF C19 H13 F N2 O



CM 2  
 CRN 150772-68-2  
 CMF C13 H9 F N2 O



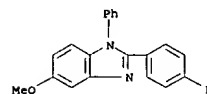
RN 150811-45-3 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)oxy-1,4-phenylene] (9CI) (CA INDEX NAME)



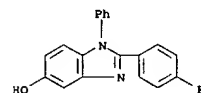
IT 150772-73-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and ether cleavage of)

L3 ANSWER 40 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 150772-73-9 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-fluorophenyl)-5-methoxy-1-phenyl- (9CI) (CA INDEX NAME)



IT 150772-74-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and polycondensation of)  
 RN 150772-74-0 CAPLUS  
 CN 1H-Benzimidazol-5-ol, 2-(4-fluorophenyl)-1-phenyl- (9CI) (CA INDEX NAME)



L3 ANSWER 41 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:505848 CAPLUS  
 DOCUMENT NUMBER: 119:105848  
 TITLE: Electrophotographic photoreceptor,

electrophotographic

INVENTOR(S): apparatus and facsimile using said photoreceptor  
 Go, Shintetsu  
 PATENT ASSIGNEE(S): Canon Kk, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JGQJAF

DOCUMENT TYPE: Patent

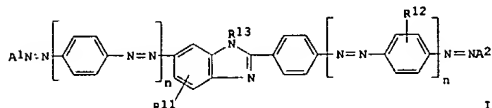
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05061223	A2	19930312	JP 1991-242444	19910829
PRIORITY APPLN. INFO.:			JP 1991-242444	19910829

GI



AB The title photoreceptor comprises an elec. conductive support having thereon a photosensitive layer containing azo dye I. For I, Al, A2 = coupler residue; further details on said coupler residue are given; R11 = H, alkyl; R12 = H, alkyl, alkoxy, etc.; R13 = H, alkyl, aryl; n = 0 or 1. The title apparatus and facsimile are also claimed. The title photoreceptor shows high sensitivity.

IT 149244-52-0

RL: USES (Uses)

(electrophotog. photoreceptors containing)

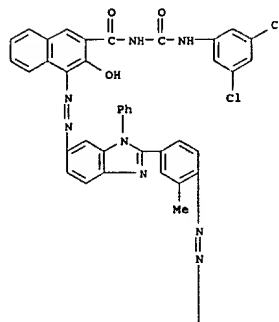
RN 149244-52-0 CAPLUS

CN 2-Naphthalenecarboxamide, 4-[[4-[6-[[3-[[[3,5-dichlorophenyl]amino]carbonyl]amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-1-phenyl-1H-benzimidazol-2-yl]-2-methylphenyl]azo]-3-hydroxy-N-(3-(trifluoromethyl)phenyl)- (9CI) (CA INDEX NAME)

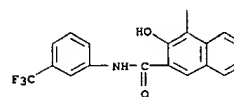
L3 ANSWER 41 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)

PAGE 1-A



PAGE 2-A



L3 ANSWER 42 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:428742 CAPLUS  
 DOCUMENT NUMBER: 119:28742  
 TITLE: Cyclic ureas as solvents for poly(aryl ether) synthesis

AUTHOR(S): Labadie, J. W.; Carter, K. R.; Hedrick, J. L.;

CORPORATE SOURCE: Jonsson, H.; Kim, S. Y.; Twieg, R. J.

SOURCE: Almaden Res. Cent., IBM Res., San Jose, CA, 95120-6077, USA

CODEN: POBUDR; ISSN: 0170-0839

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The synthesis of various poly(aryl ethers) and related small mol. compds. were examined using the cyclic urea

1,3-Dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone (N,N'-dimethylpropylene urea, DMPU) as the solvent. Generally higher mol. weight or yields were obtained under less stringent conditions, as compared to other common polymerization solvents. The enhancement

was most notable for polymers involving aryl fluorides with a lower reactivity than conventionally activated dihalide monomers, e.g. ketones, sulfones. Poly(aryl ethers) displayed excellent solubility in DMPU, which was beneficial in the cases where more rigid heterocyclic-aryl ether polymers are formed.

IT 148084-18-0P 148185-99-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

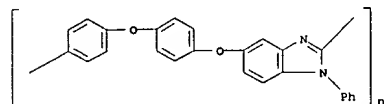
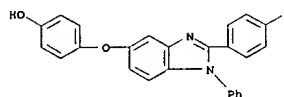
(preparation in DMPU solvent and intrinsic viscosity of)

RN 148084-18-8 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)oxy-1,4-phenylene] (9CI) (CA INDEX NAME)

L3 ANSWER 42 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

(Continued)



RN 148185-99-3 CAPLUS

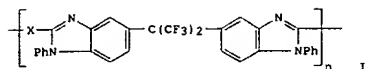
CN Phenol, 4-[[2-(4-fluorophenyl)-1-phenyl-1H-benzimidazol-5-yl]oxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

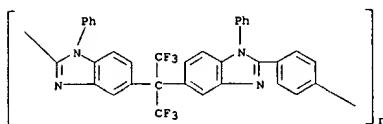
CRN 148185-98-2

CMF C25 H17 F N2 O2

L3 ANSWER 43 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1991:680702 CAPLUS  
 DOCUMENT NUMBER: 115:280702  
 TITLE: Synthesis of N-substituted polybenzimidazoles by cyclodehydrogenation of precursor poly(Schiff bases)  
 Kane, James J.; Qian, Weimin  
 Chem. Dep., Wright State Univ., Dayton, OH, 45435, USA  
 SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1991), 32(3), 232-3  
 CODEN: ACPPAY; ISSN: 0032-3934  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB Polybenzimidazoles I (X = 1,3-, 1,4-C6H4, 4-C6H4OC6H4-4) were prepared from 3,4-(H2N)(PhNH)C6H3C(CF3)2C6H3(NH2)(NHPH)-3,4 and OHXCHO via the intermediate poly(Schiff bases). The poly(Schiff bases) were converted to I by treatment with air in the presence of FeCl3.  
 IT 133661-04-8P 133661-05-9P 133751-55-0P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and properties of)  
 RN 133661-04-8 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)



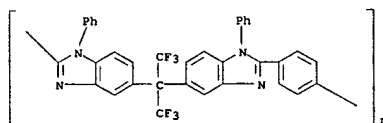
RN 133661-05-9 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene] (9CI) (CA INDEX NAME)

L3 ANSWER 44 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1991:207944 CAPLUS  
 DOCUMENT NUMBER: 114:207944  
 TITLE: New approaches to the synthesis of N-substituted polybenzimidazoles  
 Kane, James J.; Tomlinson, Ronald C.; Reinhardt, Bruce  
 A.  
 Chem. Dep., Wright State Univ., Dayton, OH, 45435, USA  
 SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1990), 31(2), 709-10  
 CODEN: ACPPAY; ISSN: 0032-3934  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

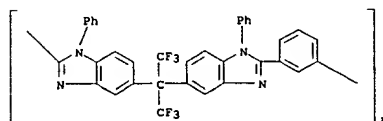
AB The title polybenzimidazoles were prepared by copolymerization of [3,4-(tertBuO2CNH)(PhNH)C6H3]2C(CF3)2 with aromatic diacids, i.e., terephthalic acid, isophthalic acid, or 4,4'-oxybis(benzoic acid) or from the corresponding diacid chlorides with [3,4-(H2N)(PhNH)C6H3]C(CF3)2.

The former method used polyphosphoric acid trimethylsilyl ester as a dehydrating agent and yielded the polybenzimidazoles directly, while the latter method proceeded via a polyamide.

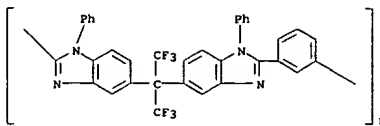
IT 133661-04-8P 133661-05-9P 133751-55-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 133661-04-8 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)



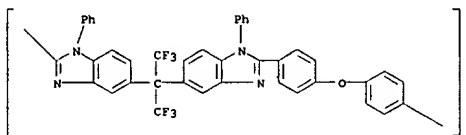
RN 133661-05-9 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene] (9CI) (CA INDEX NAME)



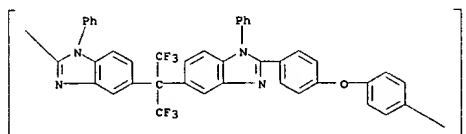
L3 ANSWER 43 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 phenylene] (9CI) (CA INDEX NAME)



RN 133751-55-0 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 44 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 133751-55-0 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene](1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 45 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1989:584118 CAPLUS  
 DOCUMENT NUMBER: 111:184118  
 TITLE: Electrophotographic photoreceptor with disazo dye-containing photoconductive layer  
 INVENTOR(S): Takai, Hideyuki; Umehara, Masashige; Matsumoto, Masakazu  
 PATENT ASSIGNEE(S): Canon K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.  
 CODEM: JKOXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01021453	A2	19890124	JP 1987-177031	19870717
JP 2538266	B2	19960925		

PRIORITY APPLN. INFO.: JP 1987-177031 19870717

GI

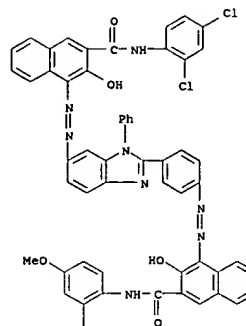
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB In the title photoreceptor, a photoconductive layer contains a disazo dye I (R1, R2 = H, alkyl, aryl, aralkyl, heterocyclyl, alkoxy, halogen, nitro, cyano; Z = O, S, NR3(R3 = H, alkyl, aryl, aralkyl); A1, A2 = coupler moiety with a phenolic OH; A1 = A2). I is used as a charge-generating agent. A photoreceptor with I as charge-generating agent showed V0 = -700 V, and E1/2 = 3.9 lx-s.

IT 123336-15-2  
 RL: USES (Uses)  
 (charge generator, electrophotog. photoreceptor with)  
 RN 123336-15-2 CAPLUS  
 CN 2-Naphthalenecarboxamide, 4-[[4-[6-[[3-[[2,4-dichlorophenyl]amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-1-phenyl]-1H-benzimidazol-2-yl]phenyl]azo]-3-hydroxy-N-(4-methoxy-2-methylphenyl)-(9CI) (CA INDEX NAME)

L3 ANSWER 45 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PAGE 1-A



PAGE 2-A

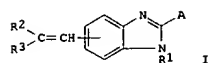
Me

L3 ANSWER 46 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1989:85382 CAPLUS  
 DOCUMENT NUMBER: 110:85382  
 TITLE: Electrophotographic photoreceptor containing charge-transporting benzimidazole derivative  
 INVENTOR(S): Shiino, Yasuko; Matsumoto, Masakazu  
 PATENT ASSIGNEE(S): Canon K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEM: JKOXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63157157	A2	19880630	JP 1986-303856	19861222

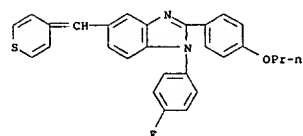
PRIORITY APPLN. INFO.: JP 1986-303856 19861222

GI



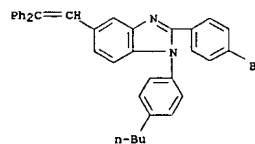
AB The title photoreceptor has a photosensitive layer containing a benzimidazole derivative I (R1 = alkyl, aryl, heterocyclyl; R2, R3 = H, R1, aralkyl; R2, R3, and the central C may form a ring residue; A = aralkyl, R1).

IT 119028-27-2 119028-29-4 119028-31-8  
 119028-33-0  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (electrophotog. charge-transporting agent)  
 RN 119028-27-2 CAPLUS  
 CN 1H-Benzimidazole,  
 1-(4-(4-fluorophenyl)-2-(4-propoxyphenyl)-5-(4H-thiopyran-4-ylidenemethyl)-(9CI) (CA INDEX NAME)

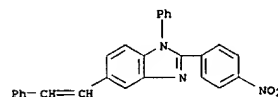


RN 119028-29-4 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-bromophenyl)-1-(4-butylphenyl)-5-(2,2-diphenylethenyl)-(9CI) (CA INDEX NAME)

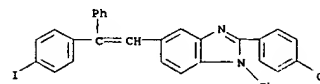
L3 ANSWER 46 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



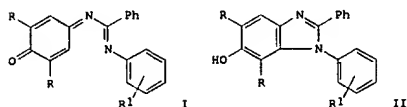
RN 119028-31-8 CAPLUS  
 CN 1H-Benzimidazole, 2-(4-nitrophenyl)-1-phenyl-5-(2-phenylethenyl)-(9CI) (CA INDEX NAME)



RN 119028-33-0 CAPLUS  
 CN 1H-Benzimidazole,  
 2-(4-chlorophenyl)-5-(2-(4-iodophenyl)-2-phenylethenyl)-1-phenyl-(9CI) (CA INDEX NAME)

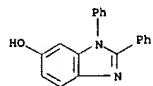


L3 ANSWER 47 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1988:590316 CAPLUS  
 DOCUMENT NUMBER: 109:190316  
 TITLE: New benzimidazole synthesis  
 AUTHOR(S): Benincori, T.; Sannicolo, F.  
 CORPORATE SOURCE: CNR, Univ. Milano, Milan, 20133, Italy  
 SOURCE: Journal of Heterocyclic Chemistry (1988), 25(3), 1029-33  
 CODEN: JHTCAD; ISSN: 0022-152X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 109:190316  
 GI



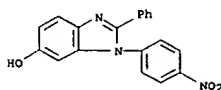
AB Thermal or acid catalyzed cyclization of several N-(N-arylbenzimidoyl)-1,4-benzoquinoneimines I (R = H, Cl, Me; R1 = H, 4-NO2, 4-MeO, 4-Cl, 4-Me, 2,5-Me2, 2,6-Me2) affords 1-aryl-6-hydroxy-2-phenylbenzimidazoles II in fairly good yields. Structural proofs and kinetic support for the reaction mechanism are given.

IT 117125-04-9P 117125-05-0P 117125-06-1P  
 117125-07-2P 117125-08-3P 117125-09-4P  
 117125-10-7P 117125-11-8P 117125-12-9P  
 117125-16-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 117125-04-9 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1,2-diphenyl- (9CI) (CA INDEX NAME)

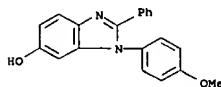


RN 117125-05-0 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(4-nitrophenyl)-2-phenyl- (9CI) (CA INDEX NAME)

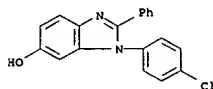
L3 ANSWER 47 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



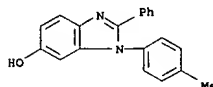
RN 117125-06-1 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(4-methoxyphenyl)-2-phenyl- (9CI) (CA INDEX NAME)



RN 117125-07-2 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(4-chlorophenyl)-2-phenyl- (9CI) (CA INDEX NAME)

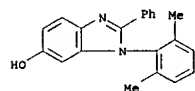


RN 117125-08-3 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(4-methylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)

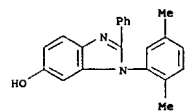


RN 117125-09-4 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(2,6-dimethylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)

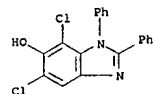
L3 ANSWER 47 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



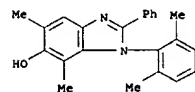
RN 117125-10-7 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(2,5-dimethylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)



RN 117125-11-8 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 5,7-dichloro-1,2-diphenyl- (9CI) (CA INDEX NAME)

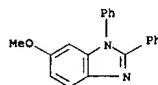


RN 117125-12-9 CAPLUS  
 CN 1H-Benzimidazol-6-ol, 1-(2,6-dimethylphenyl)-5,7-dimethyl-2-phenyl- (9CI) (CA INDEX NAME)



RN 117125-16-3 CAPLUS  
 CN 1H-Benzimidazole, 6-methoxy-1,2-diphenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 47 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



X

L3 ANSWER 48 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1988:474002 CAPLUS  
 DOCUMENT NUMBER: 109:74002  
 TITLE: Synthesis of poly(N-phenylbenzimidazoles) based on DDT

AUTHOR(S): Korshak, V. V.; Rusanov, A. L.; Kakauridze, R. G.; Fidler, S. Kh.; Tugushli, D. S.  
 CORPORATE SOURCE: Inst. Elementorg. Soedin., Moscow, USSR  
 SOURCE: Doklady Akademii Nauk SSSR (1987), 297(6), 1386-90 [Chem.]  
 CODEN: DANKAS; ISSN: 0002-3264

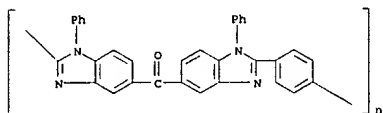
DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 AB Bis(N-phenyl-o-phenylenediamine) derivs. of DDT were prepared in 55-80% yields and polymerized with aromatic dicarboxylic acid dichlorides to give

poly(o-phenylamino)amides which were cyclized in the 2nd stage of the synthesis to give the title polymers. Both poly(o-phenylamino)amides and title polymers were characterized by viscosity, solubility, degradation temperature, and softening point. The optimal conditions for the polymerization stage were

monomer concentration  $0.3 + 103 \text{ mol/m}^3$ , temperature 293-298 K, and time  $3.6 + 104 \text{ s}$ . The optimal conditions for the cyclization stage were temperature 453 K and time  $1.8 + 104 \text{ s}$ . The title polymers were soluble in such compds. as DMSO, m-cresol, H<sub>2</sub>SO<sub>4</sub>, and HCO<sub>2</sub>H; their 10% weight loss temperature was 723-833 K and their softening point varied from 535 to 610 K.

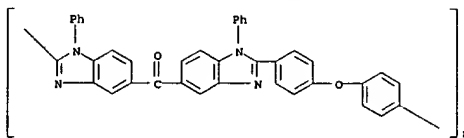
IT 115490-01-2P 115490-02-3P 115490-03-4P  
 115490-04-5P 115490-05-6P 115515-37-2P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and properties of)

RN 115490-01-2 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)carbonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

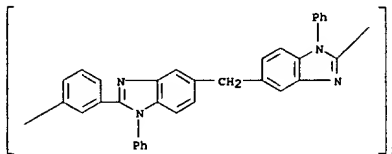


RN 115490-02-3 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)carbonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

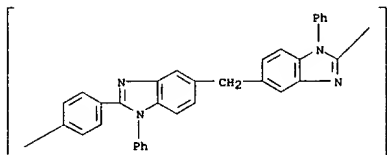
L3 ANSWER 48 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 115490-03-4 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)methylene(1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene] (9CI) (CA INDEX NAME)

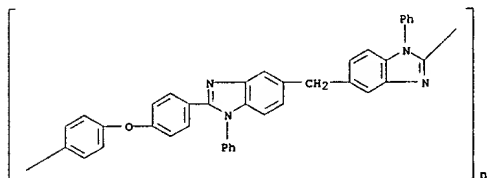


RN 115490-04-5 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)methylene(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

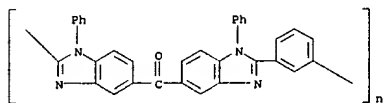


RN 115490-05-6 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)methylene(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

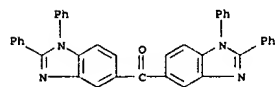
L3 ANSWER 48 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 115515-37-2 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)carbonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene] (9CI) (CA INDEX NAME)

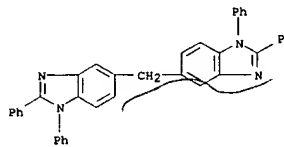


IT 115664-03-4P 115664-04-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, from DDT, as model for poly(N-phenylbenzimidazoles))  
 RN 115664-03-4 CAPLUS  
 CN Methanone, bis(1,2-diphenyl-1H-benzimidazol-5-yl)- (9CI) (CA INDEX NAME)



RN 115664-04-5 CAPLUS  
 CN 1H-Benzimidazole, 5,5'-methylenebis[1,2-diphenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 48 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



X

L3 ANSWER 49 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN

ACCESSION NUMBER: 1988:438330 CAPLUS

DOCUMENT NUMBER: 109:38330

TITLE: Synthesis and study of polybenzoxazoles containing diphenylsilyl groups

AUTHOR(S): Korshak, V. V.; Khananashvili, L. M.; Rusanov, A. L.; Butskhrikidze, B. A.; Kekauridze, R. G.; Kiplani, L. G.

CORPORATE SOURCE: Inst. Elementoorg. Soedin. im. Nesmeyanova, Moscow, USSR

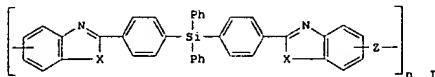
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1988), 30(4), 315-17

CODEN: VYSBAI; ISSN: 0507-5483

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI



AB The title polymers (I; X = O, NPh; Z = CO, CH<sub>2</sub>) were prepared by polycondensation of bis(p-(chlorocarbonyl)phenyl)diphenylsilane with 3,3'-diamino-4,4'-dihydroxydiphenylmethane, 3,3'-diamino-4,4'-dihydroxybenzophenone, 4,4'-bis(phenylamino)-3,3'-diaminobenzophenone, or 4,4'-bis(phenylamino)-3,3'-diaminodiphenylmethane in the presence of HCl with subsequent cyclodehydration of the functional group-containing polyamide prepolymer. The presence of Ph<sub>2</sub>Si groups led to improved solubility I were

soluble in organic solvents such as DMF, methylpyrrolidone, and tetrachloroethene-PhOH mixts. The Ph<sub>2</sub>Si groups were comparable to ether linkages with respect to their influence on the softening temperature and were intermediate between ether and CO linkages with respect to their influence on the degradation temperature

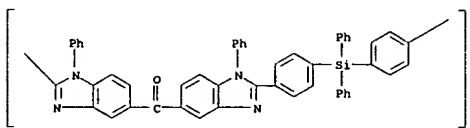
IT 115137-15-0P 115137-16-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and properties of)

RN 115137-15-0 CAPLUS

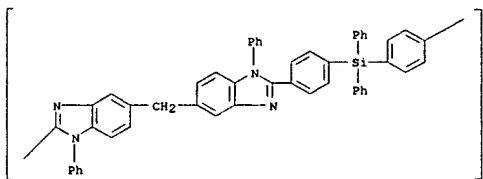
CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)carbonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene(diphenylsilylene)-1,4-phenylene] (9CI) (CA INDEX NAME)

L3 ANSWER 49 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)



RN 115137-16-1 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)methylene(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene(diphenylsilylene)-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 50 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN

ACCESSION NUMBER: 1987:431170 CAPLUS

DOCUMENT NUMBER: 107:31170

TITLE: Electrophotographic charge-generating azo compound

INVENTOR(S): Anayama, Hideki; Matsumoto, Masakazu; Yamashita, Masataka

PATENT ASSIGNEE(S): Canon K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKOXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

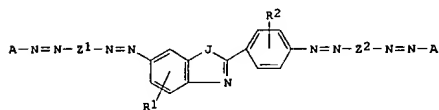
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61254948	A2	19861112	JP 1985-96368	19850507
JP 05013503	B4	19930222		

PRIORITY APPLN. INFO.: JP 1985-96368 19850507

GI



AB The azo compound has the formula I [R<sub>1</sub> = H, alkyl, halo; R<sub>2</sub> = H, alkyl, alkoxy, etc.; Z<sub>1</sub>, Z<sub>2</sub> = arylene, heterocyclene; A = coupler residue having phenolic OH group; J = O, S, NR (R = H, aryl, alkyl)]. An organic composite photoconductor was prepared by dispersing in a poly(vinyl butyral) binder an azo compound of the formula I [R<sub>1</sub> = H; R<sub>2</sub> = Me (ortho to azo group); Z<sub>1</sub> = Z<sub>2</sub> = 1,4-phenylene; A = naphthol AS coupler residue; J = O] to give a charge-generating layer and dispersing in a PMA binder a hydrazone to form a charge-transferring layer. The photoconductor showed improved sensitivity and voltage stability after producing 5000 copies.

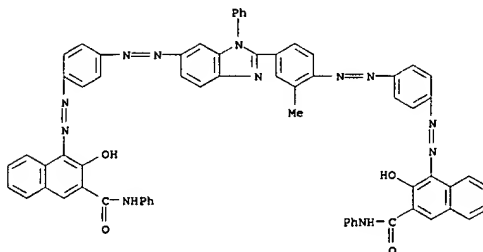
IT 108938-76-7 108938-77-8

RL: USES (Uses) (electrophotog. charge-generating compound)

RN 108938-76-7 CAPLUS

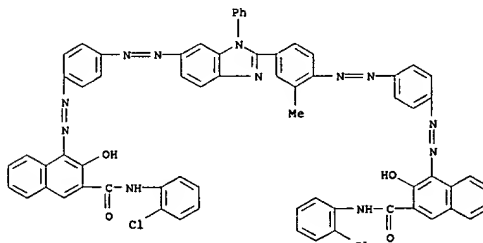
CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[4-[[2-[[4-[[2-hydroxy-3-(phenylamino)carbonyl]-1-naphthalenyl]azo]phenyl]azo]-3-methylphenyl]-1-phenyl-1H-benzimidazol-6-yl]azo]phenyl]azo]-N-phenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 50 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)



RN 108938-77-8 CAPLUS

CN 2-Naphthalenecarboxamide, N-(2-chlorophenyl)-4-[[4-[[2-[[4-[[2-hydroxy-3-(phenylamino)carbonyl]-1-naphthalenyl]azo]phenyl]azo]-3-methylphenyl]-1-phenyl-1H-benzimidazol-6-yl]azo]phenyl]azo]-3-hydroxy- (9CI) (CA INDEX NAME)





L3 ANSWER 51 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1987:198029 CAPLUS  
 DOCUMENT NUMBER: 106:198029  
 TITLE: Synthetic fibrids for heat-resistant high-modulus sheets  
 INVENTOR(S): Mera, Hiroshi; Nishihara, Toshio; Endo, Zenichiro  
 PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKOXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62006958	A2	19870113	JP 1985-144577	19850703
US 4749753	A	19880607	US 1986-880828	19860701
			JP 1985-144576	A 19850703
			JP 1985-144577	A 19850703
			JP 1985-144578	A 19850703
			JP 1985-163057	A 19850725

AB The title sheets are prepared by wet spinning together polymers with high rigidity and heat-bondable polymers to form fibrids and then hot pressing the fibrids. Thus, a mixture of 20.0 parts poly(p-phenylenebenzobisthiazole) and 20.0 parts poly(m-phenyleneisophthalamide-terephthalamide) in 2600 parts methanesulfonic acid was spun into a coagulating bath, sheared in a mixer, and washed to give fibrids. A

slurry containing these fibrids was fed to a papermaking machine and pressed 15 h at

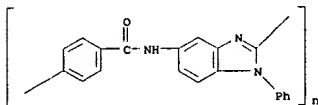
310° to give a heat-resistant paper substitute with ratio of tensile strength in MPa to modulus in GPa 19:15.

IT 26615-36-1

RL: USES (Uses)  
 (fiber, biconstituent with polyazole fibers, fibrids, for heat-resistant paper substitutes)

RN 26615-36-1 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 52 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1987:198028 CAPLUS  
 DOCUMENT NUMBER: 106:198028  
 TITLE: Manufacture of heat-bondable synthetic fibrids  
 INVENTOR(S): Mera, Hiroshi; Nishihara, Toshio; Endo, Zenichiro  
 PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKOXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62006916	A2	19870113	JP 1985-144578	19850703
US 4749753	A	19880607	US 1986-880828	19860701
			JP 1985-144576	A 19850703
			JP 1985-144577	A 19850703
			JP 1985-144578	A 19850703
			JP 1985-163057	A 19850725

AB The title fibrids for manufacture of heat-resistant tough paper substitutes are prepared by spinning or extruding liqs. containing polymers with high rigidity and heat-bondable matrix polymers into a coagulating bath, drawing the fibers or films, and then pulverizing them. Thus, a mixture of 20.0

parts poly(p-phenylenebenzobisthiazole) and 20.0 parts poly(m-phenyleneisophthalamide-terephthalamide) in 2600 parts methanesulfonic acid was spun into a coagulating bath, drawn 30% in H<sub>2</sub>O, washed, dried, drawn 10% at 450°, and fibrillated in a beater to give fibrids. A slurry containing these fibrids was fed to a papermaking machine and

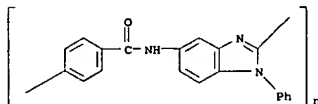
pressed 15 h at 310° to give a heat-resistant paper substitute with high bending strength.

IT 26615-36-1

RL: USES (Uses)  
 (fiber, biconstituent with polyazole fibers, fibrids for paper substitutes)

RN 26615-36-1 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 51 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62006915	A2	19870113	JP 1985-144576	19850703
US 4749753	A	19880607	US 1986-880828	19860701
			JP 1985-144576	A 19850703
			JP 1985-144577	A 19850703
			JP 1985-144578	A 19850703
			JP 1985-163057	A 19850725

AB The title sheets are prepared by wet spinning together polymers with high rigidity and heat-bondable polymers to form fibrids and then hot pressing the fibrids. Thus, a mixture of 20.0 parts poly(p-phenylenebenzobisthiazole) and 20.0 parts poly(m-phenyleneisophthalamide-terephthalamide) in 2600 parts methanesulfonic acid was spun into a coagulating bath, sheared in a mixer, and washed to give fibrids. A

slurry containing these fibrids was fed to a papermaking machine and pressed 15 h at

310° to give a heat-resistant paper substitute with ratio of tensile strength in MPa to modulus in GPa 19:15.

IT 26615-36-1

RL: USES (Uses)  
 (fiber, biconstituent with polyazole fibers, fibrids, for heat-resistant paper substitutes)

RN 26615-36-1 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 53 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1987:198027 CAPLUS  
 DOCUMENT NUMBER: 106:198027  
 TITLE: Heat-resistant heat-bondable synthetic fibrid manufacture  
 INVENTOR(S): Mera, Hiroshi; Nishihara, Toshio; Endo, Zenichiro  
 PATENT ASSIGNEE(S): Agency of Industrial Sciences and Technology, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKOXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62006915	A2	19870113	JP 1985-144576	19850703
US 4749753	A	19880607	US 1986-880828	19860701
			JP 1985-144576	A 19850703
			JP 1985-144577	A 19850703
			JP 1985-144578	A 19850703
			JP 1985-163057	A 19850725

AB The title fibrids for heat-resistant paper substitutes are prepared by wet spinning together polymers with high rigidity and heat-bondable polymers and then fibrillating the fibers by shearing. Thus, a mixture of 20.0 g poly(p-phenylenebenzobisthiazole) and 20.0 g poly(m-phenyleneisophthalamide-terephthalamide) in 2.6 kg methanesulfonic acid was spun into a coagulating bath, sheared in a mixer, and washed to give fibrids. A slurry containing these fibrids was fed to a papermaking

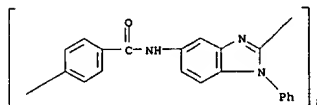
machine and pressed 15 h at 310° to give a heat-resistant paper substitute with ratio of tensile strength in MPa to modulus in GPa 35:15.

IT 26615-36-1

RL: USES (Uses)  
 (fiber, biconstituent with synthetic fibers, fibrids, heat-resistant)

RN 26615-36-1 CAPLUS

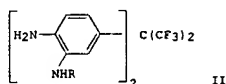
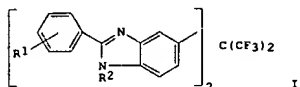
CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 54 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1986:69622 CAPLUS  
 DOCUMENT NUMBER: 104:69622  
 TITLE: Diethynylated phenylbenzimidazole compounds  
 INVENTOR(S): Lau, Kreisler S. Y.  
 PATENT ASSIGNEE(S): Hughes Aircraft Co., USA  
 SOURCE: U.S., 8 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

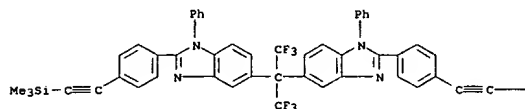
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4537974	A	19850827	US 1984-655009	19840926
US 4587315	A	19860506	US 1985-735926	19850520
PRIORITY APPLN. INFO.:			US 1984-655009	A3 19840926

OTHER SOURCE(S): MARPAT 104:69622  
 GI



AB Title compds. I (R1 = 3-, or 4-HC.tplbond.C, R2 = Ph or 4-PhOC6H4), useful for the manufacture of poly(phenylbenzimidazoles) which are stable at >300°, are prepared by cyclization of diamines II (R = Ph or 4-PhOC6H4) with 3- or 4-(trimethylsilyl)ethynylbenzaldehyde followed by reaction with anhydrous K2CO3 in anhydrous MeOH. Thus, adding 90 mL EtOH containing 3.20 g II (R = 4-PhOC6H4) (III) in 1.5 h to 150 mL 50% aqueous EtOH containing 4.75 g Na2S2O5 and 2.04 g 3-(Me3SiC.tplbond.C)C6H4CHO (prepared by ethynylation of 3-BrC6H4CHO with Me3SiC.tplbond.CH) at 80-85° with stirring, adding 50 mL EtOH, and stirring 48 h at 85-90° gave an intermediate which was reacted 24 h at 25° with 40 mL anhydrous MeOH containing 1 g anhydrous K2CO3 to give 72.5% (based on III) I (R1 = 3-HC.tplbond.C, R2 = 4-PhOC6H4) (IV). IV exhibited gel times 4, 5, 6.5, and 10.5 min at 210, 170, 160, and 150°, resp., could be processed at ≥235°, and exhibited slight solubility in Me2CO after 35-45 s

L3 ANSWER 54 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 curing at 261°, very slight soly. in Me2CO after 4 h at 316°, and insoly. in Me2CO after 14 h at 320°.  
 IT 100221-74-7P 100221-75-8P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);  
 RACT (Reactant or reagent)  
 (manufacture and reaction of, with potassium carbonate-methanol mixture)  
 RN 100221-74-7 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[1-phenyl-2-[4-[(trimethylsilyl)ethynyl]phenyl]- (9CI) (CA INDEX NAME)



PAGE 1-A

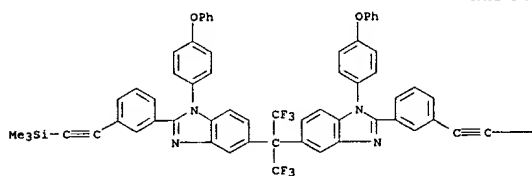
PAGE 1-B

- SiMe3

RN 100221-75-8 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[1-(4-phenoxyphenyl)-2-[3-[(trimethylsilyl)ethynyl]phenyl]- (9CI) (CA INDEX NAME)

L3 ANSWER 54 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

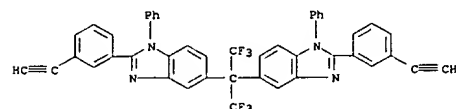
PAGE 1-A



PAGE 1-B

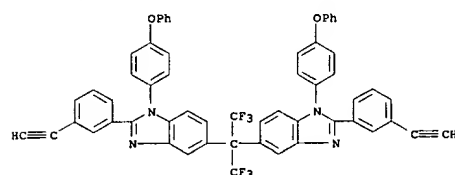
- SiMe3

IT 87787-95-9P 87787-96-0P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);  
 RACT (Reactant or reagent)  
 (manufacture and thermal polymerization of)  
 RN 87787-95-9 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-(3-ethynylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)



RN 87787-96-0 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-(3-ethynylphenyl)-1-(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)

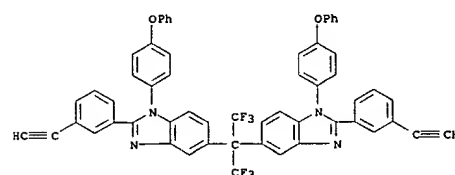
L3 ANSWER 54 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 87808-54-6P 87832-48-2P  
 RL: PEP (Physical, engineering or chemical process); PREP (Preparation);  
 PROC (Process)  
 (manufacture of heat-resistant)  
 RN 87808-54-6 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-(3-ethynylphenyl)-1-(4-phenoxyphenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 87787-96-0  
 CMF C57 H34 F6 N4 O2

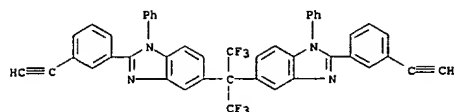


RN 87832-48-2 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[2-(3-ethynylphenyl)-1-phenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

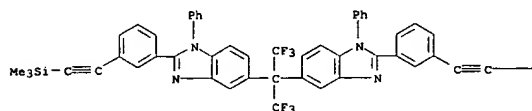
CRN 87787-95-9  
 CMF C45 H26 F6 N4

L3 ANSWER 54 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 100221-73-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and reaction of, with potassium carbonate-methanol  
 mixture)  
 RN 100221-73-6 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethyldiene]bis[  
 1-phenyl-2-[3-[(trimethylsilyl)ethynyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

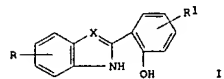


PAGE 1-B

- SiMe3

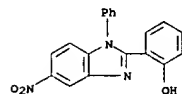
IT 87787-94-8P  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 87787-94-8 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethyldiene]bis[  
 2-(4-ethynylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 55 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1985:578192 CAPLUS  
 DOCUMENT NUMBER: 103:178192  
 TITLE: Synthesis of 2-(o-hydroxyphenyl)benzazole derivatives  
 AUTHOR(S): Skopenko, V. N.; Ol'shevskaya, I. A.; Pochinok, V.  
 Ya.; Ol'khovik, L. A.  
 CORPORATE SOURCE: Kiev. Gos. Univ., Kiev, USSR  
 SOURCE: Ukrainskii Khimicheskii Zhurnal (Russian Edition)  
 (1985), 51(3), 316-18  
 CODEN: UKZHAU; ISSN: 0041-6045  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 103:178192  
 GI



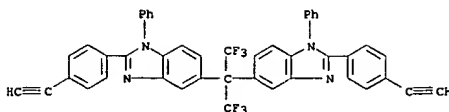
AB The title compds. I (X = NPh, NH, O, S; R = 5-, 6-NO2, 5-, 6-NH2, H; R1 = H, 3-, 5-NH2, 5-NO2, H) were prepared in 17-96% yields by cyclocondensation of salicylic acids and salicylaldehydes with appropriate diamines, aminophenols, and aminothiophenols. Diazotization of the amino derivs. followed by treatment with NaN3 gave the corresponding azides I (R,R1 = N3).

IT 98792-60-0P 98792-66-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 98792-60-0 CAPLUS  
 CN Phenol, 2-(5-nitro-1-phenyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

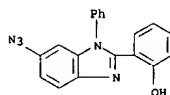


RN 98792-66-6 CAPLUS  
 CN Phenol, 2-(6-azido-1-phenyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

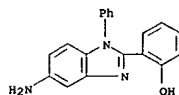
L3 ANSWER 54 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L3 ANSWER 55 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT 98792-61-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation, diazotization, and reaction with sodium azide)  
 RN 98792-61-1 CAPLUS  
 CN Phenol, 2-(5-amino-1-phenyl-1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

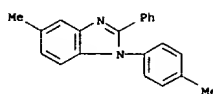


L3 ANSWER 56 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1985:176586 CAPLUS  
 DOCUMENT NUMBER: 102:176586  
 TITLE: Diazo heat-sensitive recording material  
 INVENTOR(S): Suguro, Yoshihiro; Nagamoto, Masanaka  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan  
 SOURCE: Ger. Offen., 37 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3413121	A1	19841011	DE 1984-3413121	19840406
DE 3413121	C2	19870108		
JP 59185691	A2	19841022	JP 1983-60501	19830406
US 4542394	A	19850917	US 1984-595023	19840330
PRIORITY APPL. INFO.:			JP 1983-60501	A 19830406

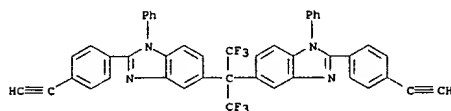
OTHER SOURCE(S): MARPAT 102:176586  
 AB Heat-sensitive recording materials of the diazo type, which show both improved storage stability and thermal response, are composed of a support coated with a layer containing  $\geq 1$  diazonium compound and a layer containing  $\geq 1$  coupler and a benzimidazole derivative. The materials are especially useful for recording the output of computers, facsimile devices, and medical anal. instruments. Thus, a high quality paper subbed with a layer containing  $\text{CaCO}_3$  and poly(vinyl alc.) (2.0 g/m<sup>2</sup>) was coated with a ball-milled dispersion containing 2,5-diethoxy-4-(p-methylphenylthio)benzenediazonium tetrafluoroborate 0.35, stearamide 1.0, vinyl acetate-vinyl chloride copolymer 2.0, and Me cellosolve 30.65 parts at 3.35 g/m<sup>2</sup> (solids) and then coated with a ball-milled dispersion containing 1-benzylbenzimidazole 1.0, Naphthol AS 0.7,  $\text{SiO}_2$  0.5, Me cellulose 0.5, and water 19.3 parts to give a recording material which was then calendered to a Bekk smoothness of 400 s. The resultant material was then recorded on in a Rifax 300 facsimile device, and optically fixed in a diazo copier to give clear blue images with an image d. of 1.07 and background d. of 0.10. After storage of this material at 40° and 90% relative humidity for 24 h, the background d. was 0.16.  
 IT 96048-82-7  
 RL: USES (Uses)  
 (thermal recording material containing diazo compound and, photofixable)  
 RN 96048-82-7 CAPLUS  
 CN 1H-Benzimidazole, 5-methyl-1-(4-methylphenyl)-2-phenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 56 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



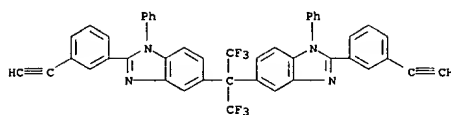
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L3 ANSWER 57 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1983:595490 CAPLUS  
 DOCUMENT NUMBER: 99:195490  
 TITLE: Ethynylated N-phenylbenzimidazoles: synthesis and thermal properties  
 AUTHOR(S): Lau, K. S. Y.; Kelleghan, W. J.; Boschan, R. H.; Billow, N.  
 CORPORATE SOURCE: Technol. Support Div., Hughes Aircr. Co., El Segundo, CA, 90245, USA  
 SOURCE: Journal of Polymer Science, Polymer Chemistry Edition (1983), 21(10), 3009-26  
 CODEN: JPLCAT; ISSN: 0449-296X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Three diethynylated bisbenzimidazole prepolymers were synthesized and their polymerization characteristics examined. N-Phenyl-substituted diethynylated bisbenzimidazole melted at 250-265° and had gel times of several seconds to several min. In contrast, an N-phenoxyphenyl diethynylated bisbenzimidazole melted at a temperature sufficiently low (apprx.150°) to provide a 5-min gel time at 170° and a 4-min gel time at 210°. A brief screening of the latter prepolymer as a laminating resin was performed. The polymers of both N-phenyl- and N-phenoxyphenyl-substituted diethynylated bisbenzimidazole showed degradation temps. of  $\geq 500^\circ$  in thermal gravimetric anal.  
 IT 87787-94-8P 87787-95-9P 87787-96-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and thermal polymerization of)  
 RN 87787-94-8 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethyldiene]bis[2-(4-ethynylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)]



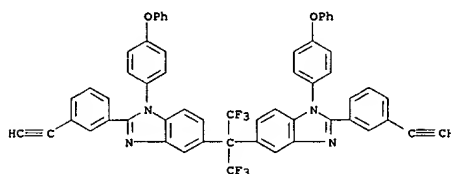
RN 87787-95-9 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethyldiene]bis[2-(3-ethynylphenyl)-1-phenyl- (9CI) (CA INDEX NAME)]

L3 ANSWER 57 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



✗

RN 87787-96-0 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethyldiene]bis[2-(3-ethynylphenyl)-1-(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)]

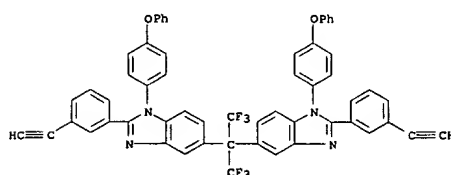


IT 87808-54-6P 87832-48-2P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and thermal properties of)

RN 87808-54-6 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethyldiene]bis[2-(3-ethynylphenyl)-1-(4-phenoxyphenyl)-, homopolymer (9CI) (CA INDEX NAME)]

CH 1

CRN 87787-96-0  
 CMF C57 H34 F6 N4 O2



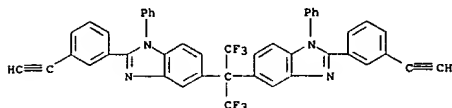
✗

L3 ANSWER 57 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 87832-48-2 CAPLUS  
 CN 1H-Benzimidazole,  
 5,5'-[2,2,2-trifluoro-1-(trifluoromethyl)ethyldene]bis[  
 2-(3-ethynylphenyl)-1-phenyl-, homopolymer (9CI) (CA INDEX NAME)

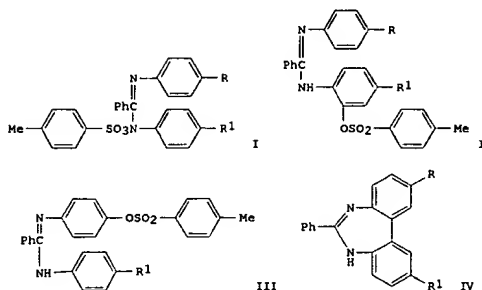
CM 1

CRN 87787-95-9  
 CMF C45 H26 F6 N4



L3 ANSWER 58 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:437796 CAPLUS  
 DOCUMENT NUMBER: 99:37796  
 TITLE: Memory effect and 1,3-diazepine ring closure in arylnitrenium ions  
 AUTHOR(S): Binding, Norbert; Heesing, Albert  
 CORPORATE SOURCE: Org. Chem. Inst., Univ. Muenster, Muenster, D-4400, Fed. Rep. Ger.  
 SOURCE: Chemische Berichte (1983), 116(5), 1822-33  
 CODEN: CHBEAH; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 OTHER SOURCE(S): CASREACT 59:37796  
 GI



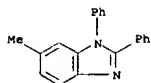
AB 15N- and 18O-labeling expts. demonstrated that in the aromatic rearrangements

I (R = H, Me, NO<sub>2</sub>; R<sub>1</sub> = H, NO<sub>2</sub>) → II → III a strong memory effect occurs in oriented contact ion pairs. The formation of IV by cyclization between 2 ortho positions of the aryl substituents is described.

IT 86318-02-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 86318-02-7 CAPLUS  
 CN 1H-Benzimidazole, 6-methyl-1,2-diphenyl- (9CI) (CA INDEX NAME)

L3 ANSWER 58 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



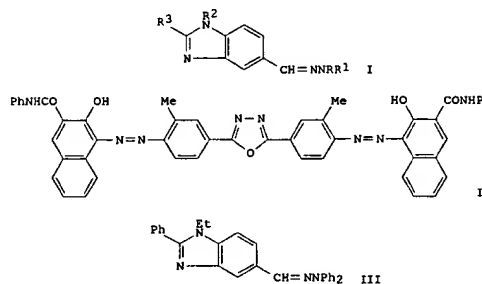
L3 ANSWER 59 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:135204 CAPLUS  
 DOCUMENT NUMBER: 98:135204  
 TITLE: Electrophotographic photosensitive materials  
 PATENT ASSIGNEE(S): Copyer Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKOXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57099648	A2	19820621	JP 1980-175250	19801213
JP 62055781	B4	19871120		
US 4391889	A	19830705	US 1981-323880	19811123
GB 2092321	A	19820811	GB 1981-35529	19811125
GB 2092321	B2	19841017		
DE 3148961	A1	19820729	DE 1981-3148961	19811210
DE 3148961	C2	19890720		

PRIORITY APPLN. INFO.: JP 1980-175250 A 19801213

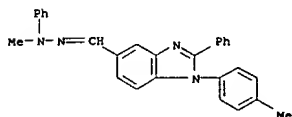
OTHER SOURCE(S): MARPAT 98:135204  
 GI



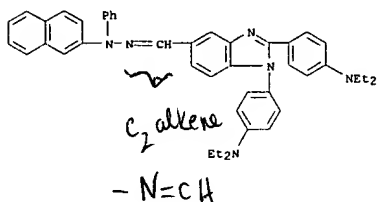
AB Electrophotog. photosensitive materials contain charge-transfer agent of the formula (I; R, R<sub>2</sub> = alkyl, aralkyl, aryl; R<sub>1</sub> = aralkyl, aryl; R<sub>3</sub> = aryl). Thus, an Al support was coated with a composition containing II and a poly(vinyl butyral) resin, and coated with a composition containing III and a polycarbonate resin to give a composite electrophotog. plate having good sensitivity.

IT 84980-32-5 84994-78-5  
 RL: TEM (Technical or engineered material use); USES (Uses)

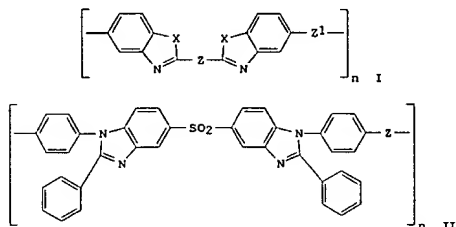
L3 ANSWER 59 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 84980-32-5 CAPLUS  
 CN 1H-Benzimidazole-5-carboxaldehyde, 1-(4-methylphenyl)-2-phenyl-, methylphenylhydrazone (9CI) (CA INDEX NAME)



RN 84994-78-5 CAPLUS  
 CN 1H-Benzimidazole-5-carboxaldehyde, 1,2-bis[4-(diethylamino)phenyl]-, 2-naphthalenylphenylhydrazone (9CI) (CA INDEX NAME)

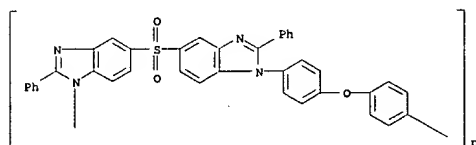


L3 ANSWER 60 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1981:66132 CAPLUS  
 DOCUMENT NUMBER: 94:66132  
 TITLE: Reductive polyheterocyclization - a new general method  
 AUTHOR(S): for the synthesis of polybenzazoles  
 Korshak, V. V.; Rusanov, A. L.; Tugushi, D. S.; Kiplani, L. G.; Dzheparidze, Z. Sh.; Shubashvili, A. S.; Gverdtsiteli, I. M.  
 CORPORATE SOURCE: Tbilis. Gos. Univ., Tbilisi, USSR  
 SOURCE: Izvestiya Akademii Nauk Gruzinskoi SSR, Seriya Khimicheskaya (1980), 6(2), 122-8  
 CODEN: IGSKDH; ISSN: 0132-6074  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 GI

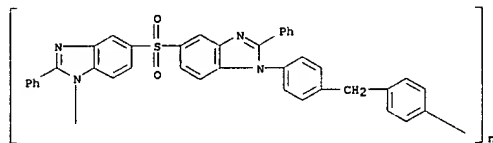


AB The title reaction was used for the preparation of polybenzimidazoles (I, X = N, O; Z = m-C6H4, p-C6H4, p-C6H4OC6H4-p; Z1 = O, CH2, CMe2), and polybenzimidazoles (II, Z = O, CH2). I were prepared by reacting bis(o-nitro amines) or bis(o-nitrophenols) with dicarboxylic acid chlorides, followed by reduction of the resulting poly(o-nitroamides) or poly(o-nitro esters) with Fe-HCl resulting in simultaneous cyclization. II were prepared by reacting bis(anilines) with 4,4'-sulfonylbis[1-chloro-2-nitrobenzene], reduction of the resulting poly(o-nitroamines), acylation with benzoyl chloride [98-88-4], and cyclization. Properties of I and II, and advantages of reductive polyheterocyclization over the previously employed method utilizing bis(o-diamines) were discussed.  
 IT 67178-25-0P 71981-14-1P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and properties of)

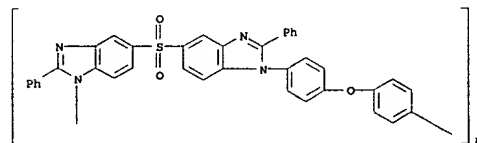
L3 ANSWER 60 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 67178-25-0 CAPLUS  
 CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



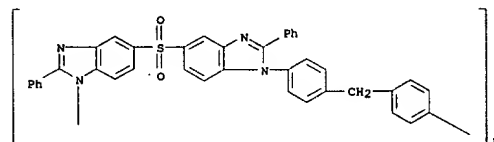
RN 71981-14-1 CAPLUS  
 CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 61 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1979:59368 CAPLUS  
 DOCUMENT NUMBER: 91:19368  
 TITLE: Synthesis of poly(1,2-diarylbenzimidazoles) by modified reductive polyheterocyclization  
 AUTHOR(S): Rusanov, A. L.; Tugushi, D. S.; Shubashvili, A. S.; Gverdtsiteli, I. M.; Korshak, V. V.  
 CORPORATE SOURCE: Tbilis. Gos. Univ., Tbilisi, USSR  
 SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1979), 21(8), 1873-7  
 CODEN: VYSAAF; ISSN: 0507-5475  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 AB The title polymers were prepared by polymerization of bis(4-halo-3-nitrophenyl) sulfones with aromatic diamines, reduction to poly(o-amino)amines, benzoylation, and thermal cyclization. Optimal reaction conditions, properties of polymers and intermediates, and the influence of diamine structure on polymer properties were determined. The products were thermally stable to 450-500° (5% weight loss in air).  
 IT 67178-25-0P 71981-14-1P 71981-15-2P 72020-01-4P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and properties of)  
 RN 67178-25-0 CAPLUS  
 CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



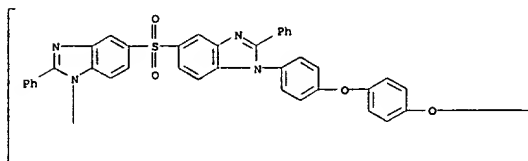
RN 71981-14-1 CAPLUS  
 CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenylenemethylene-1,4-phenylene] (9CI) (CA INDEX NAME)



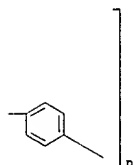
L3 ANSWER 61 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 71981-15-2 CAPLUS  
 CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A

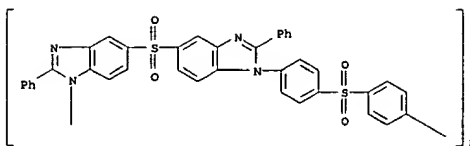


PAGE 1-B



RN 72028-01-4 CAPLUS  
 CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenylenesulfonyl-1,4-phenylene] (9CI) (CA INDEX NAME)

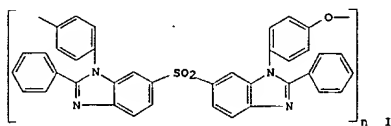
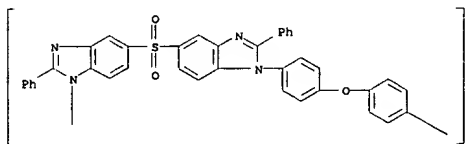
L3 ANSWER 61 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L3 ANSWER 62 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:510475 CAPLUS  
 DOCUMENT NUMBER: 89:110475  
 TITLE: Synthesis and study of poly[(1,2-diaryl)benzimidazoles]  
 AUTHOR(S): Korshak, V. V.; Rusanov, A. L.; Gverdtsiteli, I. M.; Tugushi, D. S.; Shubashvili, A. S.  
 CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR  
 SOURCE: Doklady Akademii Nauk SSSR (1978), 240(2), 346-8 [Chem.]  
 CODEN: DANKAS; ISSN: 0002-3264  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 GI

L3 ANSWER 62 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



AB Polybenzimidazole I [67178-25-0] was prepared by a modified reductive polyheterocyclization that included polycondensation of 4,4'-diaminodiphenyl ether with 4,4'-dichloro-3,3'-dinitrodiphenyl sulfone, reduction of the resulting polymer [56899-96-8] with Fe-HCl to poly(o-amino amine) [62721-12-4], acylation of the latter with benzoyl chloride [98-88-4], and cyclization of poly(o-benzamido amine) [67178-26-1] to I in the presence of HCl. The yield of I was quant. The structures of I and of the intermediates was supported by IR spectra. I was soluble in dipolar aprotic solvents (N-methyl-2-pyrrolidinone, DMF, etc.), H2SO4, F3CCO2H, etc., giving highly concentrated solns. (<25%).

Films of I cast from DMF solns. had tensile strength 1100 kg/cm2 and elongation at break 15%. I softened at 300° and, according to dynamic thermogravimetry in air, lost 10% of its weight at 450°.

IT 67178-25-0P

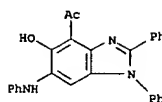
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and properties of)

RN 67178-25-0 CAPLUS

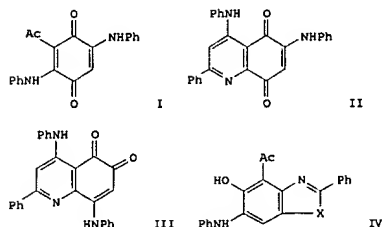
CN Poly[(2-phenyl-1H-benzimidazole-1,5-diyl)sulfonyl(2-phenyl-1H-benzimidazole-5,1-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

L3 ANSWER 63 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1978:105094 CAPLUS  
 DOCUMENT NUMBER: 88:105094  
 TITLE: Reaction of 3-acetyl-2,5-dianilino-1,4-benzoquinone and N1-phenylbenzimidine; a synthesis of quinolinequinones  
 AUTHOR(S): Schaefer, Wolfram; Falkner, Christine  
 CORPORATE SOURCE: Max-Planck-Inst. Biochem., Martinsried, Fed. Rep. Ger.  
 SOURCE: Justus Liebig's Annalen der Chemie (1977), (9), 1445-56  
 DOCUMENT TYPE: CODEN: JLABCF; ISSN: 0075-4617  
 LANGUAGE: Journal  
 OTHER SOURCE(S): German  
 CASREACT 88:105094  
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L3 ANSWER 63 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

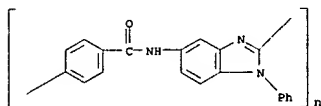


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AB Benzoquinone I reacted with PhC(:NH)NHPH to give 49% quinolinequinone II, 2.6% quinolinequinone III, 4% benzoxazole IV (X = O), and benzimidazole IV (X = NPh).  
 IT 65908-26-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 65908-26-1 CAPLUS  
 CN Ethanone,  
 1-[5-hydroxy-1,2-diphenyl-6-(phenylamino)-1H-benzimidazol-4-yl]- (9CI) (CA INDEX NAME)

L3 ANSWER 64 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1977:44211 CAPLUS  
 DOCUMENT NUMBER: 87:44211  
 TITLE: Interaction between polymeric materials and tissue  
 AUTHOR(S): Kojima, Kohichi; Imai, Yohji; Masuhara, Eiichi  
 CORPORATE SOURCE: Inst. Med. Dent. Eng., Tokyo Med. Dent. Univ., Tokyo, Japan  
 SOURCE: Kobunshi Ronbunshu (1977), 34(4), 267-73  
 CODEN: KBRBA3; ISSN: 0386-2186  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 AB Polymers for medical use (polyesters, polyamides, polyimides, poly(vinyl chloride) [9002-86-2] and silicone rubber) were implanted s.c. into dogs or were immersed in a buffer solution (pH 7.4) at 37° for 26 months. No changes were observed in both treatments as determined by differential interference microscopy, X-ray diffractometry, viscometry and IR spectroscopy. However, some additives were released by the poly(vinyl chloride) preps.  
 IT 26615-36-1  
 RL: PRP (Properties) (stability of, as prosthetics, in tissues)  
 RN 26615-36-1 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)

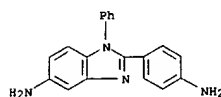


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L3 ANSWER 65 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1976:31072 CAPLUS  
 DOCUMENT NUMBER: 84:31072  
 TITLE: 1-Aryl-2-(p-aminophenyl)-5-aminobenzimidazoles  
 INVENTOR(S): Smolenskova, L. A.; Rudaya, L. I.; Kvitko, I. Ya.; El'tsov, A. V.  
 PATENT ASSIGNEE(S): Lensovet Technological Institute, USSR  
 SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztzy, Tovarnye Znaki 1975, 52(36), 63.  
 CODEN: URXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Russian  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 486018	T	19750930	SU 1973-1980999	19731229
PRIORITY APPLN. INFO.:			SU 1973-1980999	A 19731229

GI For diagram(s), see printed CA Issue.  
 AB Title compds. I (R = Ph, α-ClOH7, β-anthraquinonyl) were prepared by acylating 2,4-H2N(O2N)C6H3NHR with 4-O2NC6H4COCl at 165-70°, followed by reductive cyclization of the resulting anilides with SnCl2 in HCl.  
 IT 57842-33-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)  
 RN 57842-33-8 CAPLUS  
 CN 1H-Benzimidazol-5-amine, 2-(4-aminophenyl)-1-phenyl- (9CI) (CA INDEX NAME)



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L3 ANSWER 66 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1975:429029 CAPLUS  
 DOCUMENT NUMBER: 83:29029  
 TITLE: Selective permeable membranes  
 INVENTOR(S): Senoo, Masao; Hara, Shigeyoshi; Taketani, Yutaka  
 PATENT ASSIGNEE(S): Teijin Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKKOAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50003970	A2	19750116	JP 1973-49670	19730507
JP 55048841	B4	19801209		

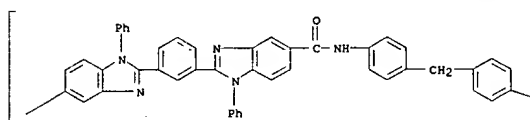
PRIORITY APPLN. INFO.: JP 1973-49670 A 19730507

AB Selective permeable membranes were prepared by casting of poly(N-arylbenzimidazole amide) solns. For example, 3-amino-4-anilinobenzoic acid [55296-17-8] and isophthaloyl chloride [99-63-8] in N-methylpyrrolidone were heated at 120° for 1.5 hr to give 2,2'-(m-phenylene)bis[1-phenylbenzimidazole-5-carboxylic acid] (I) [48238-49-9]. A solution of 27.5 g I in 60 ml N-methylpyrrolidone at 150° was treated with 13 g 4,4'-diphenylmethane diisocyanate over 15 min, heated at the same temperature for 3 hr, and diluted with N-methylpyrrolidone to a 15% solution. The 4,4'-diphenylmethane diisocyanate-2,2'-(m-phenylene)bis[1-phenylbenzimidazole-5-carboxylic acid] polymer (41377-01-9) solution (20 g) was mixed with 0.9 g LiCl, filtered through a filter with pore size 5μ, cast, dried at 130° for 15 min (residual solvent 70%), and immersed in water to give 95μ-thick membrane for reverse osmosis. 4,4'-Diphenylmethane diisocyanate-isophthalic acid-2,2'-(p-phenylene)bis[1-phenylbenzimidazole-5-carboxylic acid] polymer [55295-60-8] membrane was also prepared

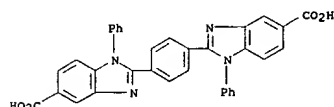
IT 41365-95-1 41377-01-9 55295-60-8  
 RL: USES (Uses)  
 (membranes, for reverse osmosis)

RN 41365-95-1 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene(1-phenyl-1H-benzimidazole-2,5-diyl)carbonylimino-1,4-phenylenemethylene-1,4-phenyleneimino] (9CI) (CA INDEX NAME)

PAGE 1-A

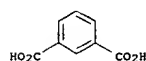


L3 ANSWER 66 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 CRN 54545-65-2  
 CMF C34 H22 N4 O4



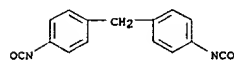
CM 2

CRN 121-91-5  
 CMF C8 H6 O4

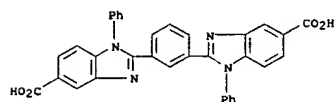


CM 3

CRN 101-68-8  
 CMF C15 H10 N2 O2

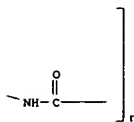


IT 48238-49-9P  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 48238-49-9 CAPLUS  
 CN 1H-Benzimidazole-5-carboxylic acid, 2,2'-(1,3-phenylene)bis[1-phenyl-1H-benzimidazole-5-carboxylic acid] (9CI) (CA INDEX NAME)



L3 ANSWER 66 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

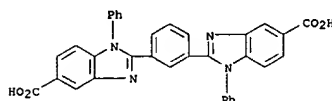
PAGE 1-B



RN 41377-01-9 CAPLUS  
 CN 1H-Benzimidazole-5-carboxylic acid, 2,2'-(1,3-phenylene)bis[1-phenyl-1H-benzimidazole-5-carboxylic acid] (9CI) (CA INDEX NAME)

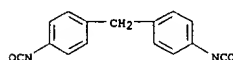
CM 1

CRN 48238-49-9  
 CMF C34 H22 N4 O4



CM 2

CRN 101-68-8  
 CMF C15 H10 N2 O2



RN 55295-60-8 CAPLUS  
 CN 1,3-Benzenedicarboxylic acid, polymer with 1,1'-methylenebis[4-isocyanatobenzene] and 2,2'-(1,4-phenylene)bis[1-phenyl-1H-benzimidazole-5-carboxylic acid] (9CI) (CA INDEX NAME)

CM 1

L3 ANSWER 67 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1975:171702 CAPLUS  
 DOCUMENT NUMBER: 82:171702  
 TITLE: Poly(benzimidazole hydrazides)  
 INVENTOR(S): Hara, Shigeyoshi; Senoo, Masao; Taketani, Yutaka  
 PATENT ASSIGNEE(S): Teijin Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKKOAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50002095	A2	19750110	JP 1973-50615	19730509

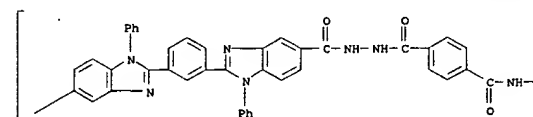
PRIORITY APPLN. INFO.: JP 1973-50615 A 19730509

GI For diagram(s), see printed CA Issue.  
 AB Dibenzenedicarboxylic acid dihydrazides(I-III) with dicarboxylic acid chlorides at -30 to +80° gave hydrophilic polymers. Thus 5.78 g I and 2.03 g p-C6H4(COCl)2 in 35 ml 1-methylpyrrolidinone(IV) were kept 0.5 hr at -10° and 3 hr at room temperature to give 2,2'-(1,3-phenylene)bis[1-phenyl-5-benzimidazolecarboxylic acid hydrazide]-terephthaloyl chloride polymer (V) [55185-47-2], intrinsic viscosity 0.84 (0.5 g/100 ml IV at 25°). V in IV containing 2% LiCl was cast as a film which showed 45% water absorption when dipped in water at room temperature

IT 55172-42-4P 55185-47-2P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (manufacture of, hydrophilic)

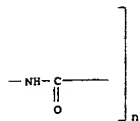
RN 55172-42-4 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene(1-phenyl-1H-benzimidazole-2,5-diyl)carbonylhydrazocarbonyl-1,4-phenyleneimino] (9CI) (CA INDEX NAME)

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L3 ANSWER 67 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

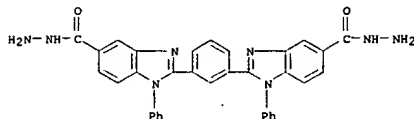
PAGE 1-B



RN 55185-47-2 CAPLUS  
CN 1H-Benzimidazole-5-carboxylic acid, 2,2'-(1,3-phenylene)bis[1-phenyl-, dihydrazide, polymer with 1,4-benzenedicarbonyl dichloride (9CI) (CA INDEX NAME)

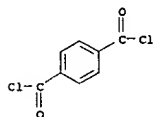
CM 1

CRN 55185-46-1  
CMF C34 H26 N8 O2



CM 2

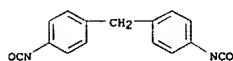
CRN 100-20-9  
CMF C8 H4 C12 O2



L3 ANSWER 68 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

CM 2

CRN 101-68-8  
CMF C15 H10 N2 O2



L3 ANSWER 68 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1975:112609 CAPLUS  
DOCUMENT NUMBER: 82:112609  
TITLE: Heat-resistant polymers containing benzimidazole rings  
INVENTOR(S): Hara, Shigeyoshi; Senoo, Masao; Taketani, Yutaka  
PATENT ASSIGNEE(S): Teijin Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKKKAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 49078798	A2	19740730	JP 1972-121066	19721202
PRIORITY APPL. INFO.:			JP 1972-121066	A 19721202

GI For diagram(s), see printed CA Issue.

AB Title polymers are prepared by reaction of polycarboxylic acids containing

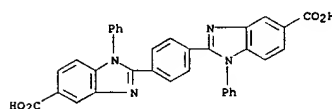
N-aryl-substituted benzimidazole rings, and optionally polyfunctional compds. containing 22 carboxyl, carboxylic acid anhydride and iminoacetic acid derivative groups with polyisocyanates and/or masked polyisocyanates. Thus, 27.5 g I in 60 ml dehydrated N-methylpyrrolidone was mixed with 13 g 4,4'-diphenylmethane diisocyanate at 150° for 15 min, kept at 150° for 3 hr and dried on a glass plate to give a poly(amide benzimidazole) [54545-66-3], [η]=0.47(0.5 g/100 ml, N-methylpyrrolidone, 30°).

IT 54545-66-3P  
RL: PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)  
(manufacture of, heat-resistant)

RN 54545-66-3 CAPLUS  
CN 1H-Benzimidazole-5-carboxylic acid, 2,2'-(1,4-phenylene)bis[1-phenyl-, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 54545-65-2  
CMF C34 H22 N4 O4



L3 ANSWER 69 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1973:406400 CAPLUS  
DOCUMENT NUMBER: 79:6400  
TITLE: Permeable polymeric membranes  
INVENTOR(S): Senoo, Masao; Hara, Shigeyoshi; Ozawa, Shuji  
PATENT ASSIGNEE(S): Teijin Ltd.  
SOURCE: Ger. Offen., 77 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2244908	A1	19730329	DE 1972-2244908	19720913
DE 2244908	B2	19760610		
DE 2244908	C3	19770203		
JP 48037377	A2	19730601	JP 1971-71550	19710913
JP 52003906	B4	19770131		
JP 48096457	A2	19731210	JP 1972-13801	19720208
JP 54019395	B4	19790714		
US 3951920	A	19760420	US 1972-288389	19720912
CA 1003994	A1	19770118	CA 1972-151546	19720912
BE 788751	A1	19730102	BE 1972-121959	19720913
NL 7212413	A	19730315	NL 1972-12413	19720913
FR 2152900	A1	19730427	FR 1972-32390	19720913
IT 967423	A	19740228	IT 1972-29151	19720913
GB 1401873	A	19750806	GB 1972-42578	19720913
PRIORITY APPL. INFO.:			JP 1971-71550	A 19710913
			JP 1972-13801	A 19720208

AB Membranes showing good retention of permselectivity in reverse osmosis are prepared from benzimidazole derivative polymers. Thus, a 15% solution of cyclized

2,4-diaminodiphenylamine-terephthaloyl chloride copolymer [26220-31-5] having the structure I [inherent viscosity (N-methylpyrrolidone, 30 deg.) 1.93] in N-methylpyrrolidone containing 20% (based on I) lithium chloride [7447-41-8] is dried and washed to give a 33-6 μ film containing 56% H2O and <0.003% LiCl, having H2O throughput 5.4 l./m2-hr at 150 kg/cm2, salt retention (from 0.10% solution) 95%, H2O permeability 1030.

Corresponding values for a membrane similarly prepared from poly(m-phenylene isophthalamide-terephthalamide) are 2.2 (at 6.0 kg/cm2), 28%, and 420.

IT 41365-95-1 41377-01-9

RL: USES (Uses)

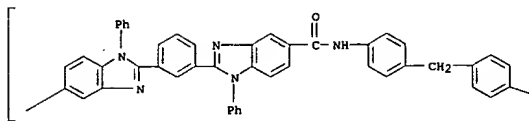
(permeable polymeric membranes, for reverse osmosis)

RN 41365-95-1 CAPLUS

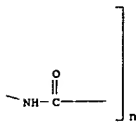
CN Poly[(1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene(1-phenyl-1H-benzimidazole-2,5-diyl)carbonylimino-1,4-phenylenemethylene-1,4-phenyleneiminocarbonyl] (9CI) (CA INDEX NAME)

L3 ANSWER 69 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

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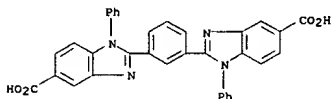
PAGE 1-B



RN 41377-01-9 CAPLUS  
CN 1H-Benzimidazole-5-carboxylic acid, 2,2'-(1,3-phenylene)bis(1-phenyl-, polymer with 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

CM 1

CRN 48238-49-9  
CMF C34 H22 N4 O4

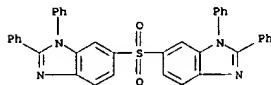


CM 2

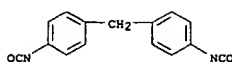
CRN 101-68-8  
CMF C15 H10 N2 O2

L3 ANSWER 70 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1973:136162 CAPLUS  
DOCUMENT NUMBER: 78:136162  
TITLE: Synthesis and study of N-phenyl-substituted bibenzimidazoles  
AUTHOR(S): Korshak, V. V.; Rusanov, A. L.; Tugushi, D. S.; Leont'eva, S. N.  
CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR  
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1973), (2), 252-5  
CODEN: KGSSAQ; ISSN: 0132-6244  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
AB N-Phenylbibenzimidazoles (I; Q = p-C6H4, m-C6H4, 4,4'-(C6H4)2, 6-C10H6, 4,4'-C6H4SO2C6H4) were prepared in 65-80% yields by treatment of o-H2NCGHNHPh with Q(COCl)2 to give 70-90% dianilides Q(CONHC6H4NHPh-o)2, which were the cyclodehydrated. Similarly prepared were 70% benzodibenzimidazole (II) and bibenzimidazoles (III; X = SO2, bond).  
IT 39823-41-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
RN 39823-41-1 CAPLUS  
CN 1H-Benzimidazole, 6,6'-sulfonylbis[1,2-diphenyl- (9CI) (CA INDEX NAME)]

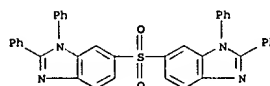


L3 ANSWER 69 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)

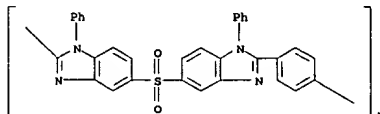


L3 ANSWER 71 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN

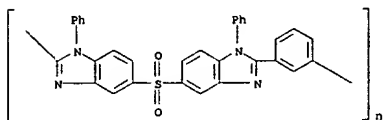
ACCESSION NUMBER: 1973:72645 CAPLUS  
DOCUMENT NUMBER: 78:72645  
TITLE: Two-stage synthesis of poly(N-phenylbenzimidazoles)  
AUTHOR(S): Korshak, V. V.; Rusanov, A. L.; Tugushi, D. S.; Cherkasova, G. M.  
CORPORATE SOURCE: Inst. Elementoorg. Compds., Moscow, USSR  
SOURCE: Macromolecules (1972), 5(6), 807-12  
CODEN: MAMOBX; ISSN: 0024-9297  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The low-temperature solution polymerization of 1,3-diamino-4,6-dianilinobenzene (I), 3,3'-diamino-4,4'-dianilinobiphenyl, and 3,3'-diamino-4,4'-dianilinodiphenyl sulfone with various dicarboxylic acid dichlorides gave high-mol.-weight poly(o-anilino amides), which were cyclized at 300-310 deg. to poly(N-phenylbenzimidazoles), which were soluble in HCOOH and tetrachloroethane-PhOH and formed strong films. For example, I and terephthaloyl chloride gave poly[imino(4,6-dianilino-m-phenylene)iminoterephthalyl] (II) [31497-73-1], which was cyclized to poly[(1,7-dihydro-1,7-diphenylbenzo[1,2-d:4,5-d']diazole-2,6-diyl)-p-phenylene] (III) [31497-74-2]. Twenty analogous polyamides and their corresponding polybenzimidazoles were also prepared, and dynamic and isothermal thermogravimetric anal. curves for 7 of the polybenzimidazoles were given and discussed. In addition, 20 model compds. were prepared  
IT 39823-41-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
RN 39823-41-1 CAPLUS  
CN 1H-Benzimidazole, 6,6'-sulfonylbis[1,2-diphenyl- (9CI) (CA INDEX NAME)]



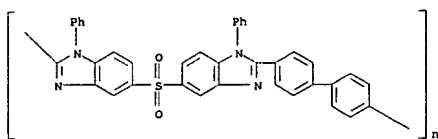
IT 39820-51-4P 39820-52-5P 39820-53-6P  
39820-56-9P 39820-57-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, by cyclization of poly(o-anilino amides))  
RN 39820-51-4 CAPLUS  
CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)sulfonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)]



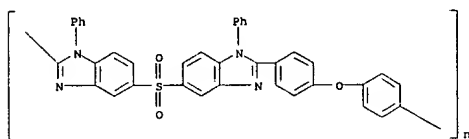
L3 ANSWER 71 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)  
 RN 39820-52-5 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)sulfonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,3-phenylene] (9CI) (CA INDEX NAME)



RN 39820-53-6 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)sulfonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,1'-biphenyl]-4,4'-diyl] (9CI) (CA INDEX NAME)



RN 39820-56-9 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)sulfonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 39820-57-0 CAPLUS  
 CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)sulfonyl(1-phenyl-1H-benzimidazole-5,2-diyl)-1,4-phenylenesulfonyl-1,4-phenylene] (9CI) (CA INDEX NAME)

L3 ANSWER 72 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1970:488408 CAPLUS  
 DOCUMENT NUMBER: 73:88408  
 TITLE: Manufacturing polybenzimidazoles  
 INVENTOR(S): Hara, Shigeyoshi; Seo, Masao; Uchida, Moriya  
 PATENT ASSIGNEE(S): Teijin Ltd.  
 SOURCE: Jpn. Tokkyo Koho, 4 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 45022555	B4	19700730	JP	19671019
DE 1795319			DE	
FR 1584809			FR	
GB 1216567			GB	
US 3597391		19710803	US	19680906

AB Poly(amide amines) (I) are ring-closed by the heat treatment to give heat-resistant polybenzimidazoles (II), which are soluble in polar organic

solvents and useful as fibers and films. E.g., 2.72 g 2,4-diaminodiphenylamine-2HCl, 4.24 g Na<sub>2</sub>CO<sub>3</sub>, 50 ml H<sub>2</sub>O, and 42 ml THF (III) are stirred rapidly in a blender and the solution is mixed with 2.03 g terephthaloyl chloride in 17 ml III and stirred 10 hr to give I (yellow powder), which is heated 6 hr at 300° in vacuo to give II, which is soluble in HCO<sub>2</sub>H, dichloroacetic acid, and m-cresol, and shows thermal stability at 5430°.

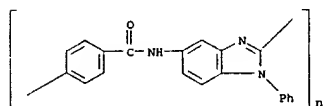
IT 26615-36-1P

RL: PREP (Preparation)

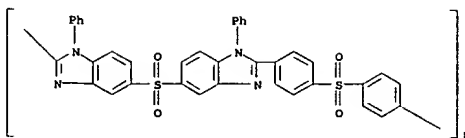
(preparation of)

RN 26615-36-1 CAPLUS

CN Poly[(1-phenyl-1H-benzimidazole-2,5-diyl)iminocarbonyl-1,4-phenylene] (9CI) (CA INDEX NAME)



L3 ANSWER 71 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L3 ANSWER 73 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1970:90473 CAPLUS  
 DOCUMENT NUMBER: 72:90473  
 TITLE: Antiinflammatory substituted 1,2-diphenylbenzimidazoles  
 INVENTOR(S): Rohrbach, Philippe; Blum, Jean  
 PATENT ASSIGNEE(S): Manufactures J. R. Bottu  
 SOURCE: Brit., 8 pp.  
 CODEN: BRXXAA  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

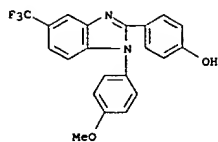
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1174493		19691217	GB 1967-32933	19670510
DE 1770362			DE	
FR 7408			FR	

GI For diagram(s), see printed CA Issue.

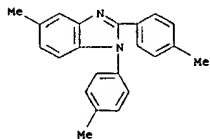
AB The title compds. (I), antiinflammatory and analgesic agents of low toxicity, are prepared by oxidative cyclization of II in the presence of PhNO<sub>2</sub>. Refluxing 10.5 g 4-MeOC<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>3</sub>(NH<sub>2</sub>)<sub>2</sub>-1,2, 6.5 g 4-MeOC<sub>6</sub>H<sub>4</sub>CHO, and 40 ml MeOH 1 hr gave 10.5 g II (R = H, R<sub>1</sub> = R<sub>2</sub> = 4-MeO) (III), m. 122°. A solution of 10.5 g III in 11 ml PhNO<sub>2</sub> was refluxed 15 min to give 9.4 g I (R = H, R<sub>1</sub> = R<sub>2</sub> = 4-MeO) (IV), m. 151° EtOH. The following intermediates (II) (oils) and I were similarly prepared (R, R<sub>1</sub>, and R<sub>2</sub> in II, and m.p. and % yield of corresponding I given): 5-MeO, 4-MeO, 4-MeO (m. 92°), 160° (iso-PrOH), 50; 4-Me, 4-MeO, 4-MeO, 173° (iso-PrOH), 32; 4-MeO, 4-MeO, 4-MeO, 140° (iso-PrOH), 31; 4-F3C, 4-MeO, 4-MeO (V), 163° (AcOEt), 27; H, 4-MeO, 4-Cl, 187° (MeOH), 35; 4-Me, 4-MeO, 4-Cl, 193° (iso-PrOH), 42; 4-Cl, 4-MeO, 4-MeO, 147-8°, (iso-PrOH), 57; H, 4-MeO, 4-Me, 136° (iso-PrOH), 77.7; H, 4-MeO, 3-F3C, 144° (EtOH), 30; H, 4-MeO, 3-Cl, 192° (EtOH), 50; H, 4-Cl, 4-MeO, 158° (iso-PrOH), 79; H, 4-(Et<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>O), 4-MeO, 110° (iso-PrOH), 43; 4-F3C, 4-HO, 4-MeO, 256° (iso-PrOH), 10; H, 4-MeO, 2-Cl, 159° (iso-PrOH), 47; 5-Me, 4-MeO, 4-MeO, [HCl salt m. 192-3° (decomposition) (iso-PrOH)], -1; H, 2-Cl, 4-MeO, [HCl salt m. 200° (decomposition) (EtOH)], 26; H, 4-MeO, 3-Cl, 122° (iso-PrOH-petroleum ether), 54; H, 2-MeO, 4-MeO, 124° (iso-PrOH-petroleum ether), 35; 4-Me, 4-Me, 4-Me, 142° (iso-PrOH), 60; H, 4-Me, 4-MeO, 149° (AcOEt), 43; H, 4-CO<sub>2</sub>H, 4-MeO (m.p. 210°), 268° (AcOEt), 60. Antiinflammatory activity of IV and V in the rat was obtained at 15 mg/kg orally while acute oral mouse toxicity (LD<sub>50</sub>) was absent at 3 g/kg (V) and 5 g/kg (IV); the human oral dose is 0.1-5 g daily.

IT 24784-18-7P 24784-23-4P 24784-39-2P  
 24784-40-5P 24784-41-6P 24784-43-8P  
 24784-44-9P 24802-81-1P 26277-75-8P  
 26757-16-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 24784-18-7 CAPLUS  
 CN Phenol, p-[1-(p-methoxyphenyl)-5-(trifluoromethyl)-2-benzimidazolyl]- (9CI) (CA INDEX NAME)

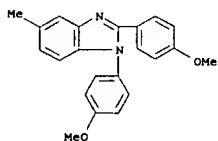
L3 ANSWER 73 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 24784-23-4 CAPLUS  
CN Benzimidazole, 5-methyl-1,2-di-p-tolyl- (8CI) (CA INDEX NAME)

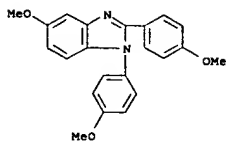


RN 24784-39-2 CAPLUS  
CN Benzimidazole, 1,2-bis(p-methoxyphenyl)-5-methyl- (8CI) (CA INDEX NAME)

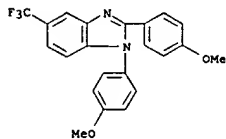


RN 24784-40-5 CAPLUS  
CN Benzimidazole, 5-methoxy-1,2-bis(p-methoxyphenyl)- (8CI) (CA INDEX NAME)

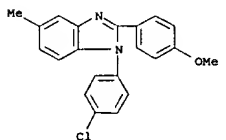
L3 ANSWER 73 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 24784-41-6 CAPLUS  
CN Benzimidazole, 1,2-bis(p-methoxyphenyl)-5-(trifluoromethyl)- (8CI) (CA INDEX NAME)

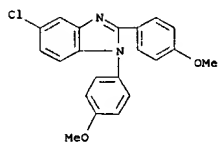


RN 24784-43-8 CAPLUS  
CN Benzimidazole, 1-(p-chlorophenyl)-2-(p-methoxyphenyl)-5-methyl- (8CI) (CA INDEX NAME)

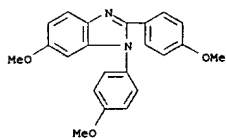


RN 24784-44-9 CAPLUS  
CN Benzimidazole, 5-chloro-1,2-bis(p-methoxyphenyl)- (8CI) (CA INDEX NAME)

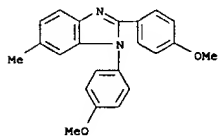
L3 ANSWER 73 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 24802-81-1 CAPLUS  
CN Benzimidazole, 6-methoxy-1,2-bis(p-methoxyphenyl)- (8CI) (CA INDEX NAME)



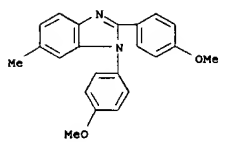
RN 26277-75-8 CAPLUS  
CN Benzimidazole, 1,2-bis(p-methoxyphenyl)-6-methyl-, hydrochloride (8CI) (CA INDEX NAME)



● x HCl

RN 26757-16-4 CAPLUS  
CN Benzimidazole, 1,2-bis(p-methoxyphenyl)-6-methyl- (8CI) (CA INDEX NAME)

L3 ANSWER 73 OF 81 CAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L3 ANSWER 74 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN  
 ACCESSION NUMBER: 1970:31791 CAPLUS  
 DOCUMENT NUMBER: 72:31791  
 TITLE: Antiinflammatory benzimidazole derivatives  
 INVENTOR(S): Rohrbach, Philippe; Blum, Jean  
 PATENT ASSIGNEE(S): Manufactures J. R. Bottu  
 SOURCE: Fr., 13 pp.  
 CODEN: FROXAK  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 1561049		19690321	FR	19680507
PRIORITY APPLN. INFO.:			GB	19670510
			GB	19670718

OTHER SOURCE(S): MARPAT 72:31791

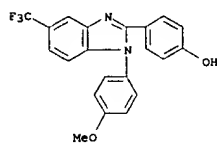
GI For diagram(s), see printed CA Issue.  
 AB Benzimidazoles I, useful as antiinflammatory, antitoxic, and analgesic agents are prepared by treating substituted N-phenyl-o-phenylenediamine with

a substituted BzH, followed by oxidizing the intermediate product. Thus, a mixture of 10.5 g N-(4-methoxyphenyl)-o-phenylenediamine and 6.5 g pMeOC<sub>6</sub>H<sub>4</sub>CHO in 40 ml MeOH was refluxed 1 hr and cooled to give 6.34 g N-(p-methoxyphenyl)-N'-(4-methoxybenzylidene)-o-phenylenediamine (II), m. 122°. II (10.5 g) was heated in 11 ml PhNO<sub>2</sub> 15 min to give 90% 1,2-bis(p-methoxyphenyl)-benzimidazole, m. 151° (EtOH). The I prepared are tabulated.

IT 24784-18-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 24784-18-7 CAPLUS

CN Phenol, p-[1-(p-methoxyphenyl)-5-(trifluoromethyl)-2-benzimidazolyl]- (8CI) (CA INDEX NAME)



L3 ANSWER 75 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)  
 methylbenzoxazole, 91°; 2-(4-dimethylaminophenyl)-6-methylbenzoxazole, 189°; 2-(4-diethylamino phenyl)-6-methylbenzoxazole, 108°; 2-(4-methoxyphenyl)-5-chlorobenzoxazole, 148°; 2-(4-dimethylaminophenyl)-5-chlorobenzoxazole, 179°; 2-(4-diethylaminophenyl)-5-chlorobenzoxazole, 160°; 2-(3-methoxy-4-hydroxyphenyl)benzimidazole, 222°; 2-(4-diethylaminophenyl)benzimidazole, 233°; 1-methyl-2-(3,4-methylenedioxyphenyl)benzimidazole, 160°; 1-methyl-2-(4-dimethylaminophenyl)benzimidazole, 124°; 1-methyl-2-(4-hydroxyl-naphthyl)benzimidazole, 311°; 1-methyl-2-(4-dimethylaminophenyl)-6-methylbenzimidazole, 180°; 1-methyl-2-(3,4-methylenedioxyphenyl)-5-methylbenzimidazole, 149°; 1-methyl-2-(4-dimethylaminophenyl)-5-methylbenzimidazole, 161°; 1-methyl-2-(4-diethylaminophenyl)-5-methylbenzimidazole, 149°; 1-methyl-2-(4-dimethylaminophenyl)-5-nitrobenzimidazole, 171°; 1-methyl-2-(4-dimethylaminophenyl)-5-nitrobenzimidazole, 238°; 1-methyl-2-(4-diethylaminophenyl)-5-nitrobenzimidazole, 154°; 1-ethyl-2-(2-hydroxyphenyl)benzimidazole, 129°; 1-phenyl-2-(4-dimethylaminophenyl)benzimidazole, 222°; 1-phenyl-2-(4-diethylaminophenyl)benzimidazole, 148°; 1-(4-dimethylaminophenyl)-2-(2-hydroxyphenyl)-6-chlorobenzimidazole, 218°;

1-(4-dimethylaminophenyl)-2-(4-dimethylaminophenyl)-6-chlorobenzimidazole, 217°; 1-benzyl-2-(4-hydroxyphenyl)benzimidazole, 233°; 2-(p-dimethylaminophenyl)naphth[2,3':4,5]imidazole, 300° (sinters); 2-(2-pyridyl)naphthimidazole, 224-5°; 1-methyl-2-(2-hydroxyphenyl)naphth[4,5:1,2']imidazole, 155°; 1-ethyl-2-(4-dimethylaminophenyl)-7-methoxy[4,5:1,2']imidazole, 208°; 2-phenylphenanthro[9',10':4,5]oxazole, 200-2°; 2-(4-chlorophenyl)phenanthro[9',10':4,5]oxazole, 256-7°; 2-(4-methoxyphenyl)phenanthro[9',10':4,5]oxazole, 179-80°; 2-(4-diethylaminophenyl)phenanthro[9',10':4,5]oxazole, 260-5°; 2-furylphenanthro[9',10':4,5]oxazole, 228-30°; 1-methyl-2-(2-pyrryl)-5-methylbenzimidazole, 193°; 1-methyl-2-(2-pyrryl)-5-methylbenzimidazole, 114°; 2-(4-aminophenyl)benzimidazole, 240°; 2-(3-amino-4-dimethylaminophenyl)-6-methylbenzothiazole, 109°; 2-(3-nitro-4-dimethylaminophenyl)-6-methylbenzothiazole, 144°; 2-(4-dimethylaminophenyl)-6-methylbenzothiazole-sulfonamide, 244°; 2-(4-dimethylaminophenyl)-6-methylbenzothiazole-N-monomethylsulfonamide, 204°; the N-ethylsulfonamide (I), 172°; 2-(4-dimethylaminophenyl)-6-methylbenzothiazolesulfonic acid morpholide, 189°; II, 202°; and III, 224°. An opaque paper base which was permeable to light rays and which had been treated to resist penetration of org. solvents was coated with .apprx. 6 μ thick coating by means of a soln. made by dissolving 10 g. of a post-chlorinated poly(vinyl chloride) (having a Cl content of .apprx. 60%) in 100 g. MeCOEt,

then adding 1st a soln. of 10 g.

2-(4'-dimethylaminophenyl)naphtho[2,3':4,5]imidazole in 30 g. toluene and then a soln. of 0.01 g. Rhodamine B extra in 2 g. MeOH. The coated paper was given a neg. elec. charge and then placed with the coated side against a book page (printed on both sides and backed by black paper); a reflex image was produced by exposing to a 100-w. incandescent bulb through the paper for 1 sec. The image was developed by a developer powder consisting of 2.5 g. toner (30 parts polystyrol LG, 30 parts Beckacite K 105, and 3 parts Peerless Black Russ

L3 ANSWER 75 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN  
 ACCESSION NUMBER: 19680507 CAPLUS  
 DOCUMENT NUMBER: 65:108057  
 ORIGINAL REFERENCE NO.: 65:201304-h, 20131a-e  
 TITLE: Organic photoconductive materials for electrophotography  
 INVENTOR(S): Sues, Oskar; Tomanek, Martha; Lind, Erwin  
 PATENT ASSIGNEE(S): Azoplate Corp.  
 SOURCE: 16 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3257204		19660621	US 1959-834680	19590819
PRIORITY APPLN. INFO.:			DE	19580822

GI For diagram(s), see printed CA Issue.

AB Electrophotographic elements and processes utilizing polynuclear oxazole, thiazole, and imidazole compds. are reported. These are photoconductive and especially suited to production of very stable homogeneous layers.

The

compds. were prepared by known methods and are as follows (m.p. given): 2-phenylbenzothiazole, 114°; 2-(4-methoxyphenyl)benzothiazole, 134°; 2-(4-aminophenyl)benzothiazole, 157°; 2-(4-dimethylaminophenyl)benzothiazole, 173°; 2-(4-diethylaminophenyl)benzothiazole, 125°; 2-phenyl-6-methylbenzothiazole, 125°; 2-(4-methoxyphenyl)-6-methylbenzothiazole, 174°; 2-(4-aminophenyl)-6-methylbenzothiazole, 191°; 2-(4-acetylaminophenyl)-6-methylbenzothiazole, 225°; 2-(4-dimethylaminophenyl)-6-methylbenzothiazole, 196-7°; 2-(4-diethylaminophenyl)-6-methylbenzothiazole, 128°; 2-(4-diethylaminophenyl)-6-methylbenzothiazole N,N-dimethylsulfonamide, 145°; 2-(4-diethylaminophenyl)-6-methylbenzothiazole N,N-diethyl-sulfonamide, 145°; 2-(3-methoxy-4-hydroxyphenyl)-6-methylbenzothiazole, 213°; 2-(3-hydroxy-4-methoxyphenyl)-6-methylbenzothiazole, 138°; 2-(2-methoxy-6-hydroxyphenyl)-6-methylbenzothiazole, 164°; 2-(3,4-dihydroxyphenyl)-6-methylbenzothiazole, 271°; 2-phenyl-6-methoxybenzothiazole, 117°; 2-(4-methoxyphenyl)-6-methoxybenzothiazole, 163°; 2-(4-dimethylaminophenyl)-6-methoxybenzothiazole, 182°; 2-(4-diethylaminophenyl)-6-methoxybenzothiazole, 140°; 2-phenyl-6-dimethyl-aminobenzothiazole, 133°; 2-(4-methoxyphenyl)-6-dimethyl-aminobenzothiazole, 151°; 2-(4-nitrophenyl)-6-diethylamino-benzothiazole, 246°; 2-(3-nitrophenyl)-6-dimethylaminobenzothiazole, 176°; 2-(2-nitrophenyl)-6-dimethylaminobenzothiazole, 147°; 2-(4-dimethylaminophenyl)-6-dimethylaminobenzothiazole, 230°; 2-(4-diethylaminophenyl)-6-dimethylaminobenzothiazole, 171°; 2-(3,4-methylenedioxyphenyl)-6-dimethylaminobenzothiazole, 176°; 2-phenylbenzoxazole, 102°; 2-(4-methoxyphenyl)benzoxazole, 99°; 2-(4-dimethoxyphenyl)benzoxazole, 182°; 2-(4-dimethylaminophenyl)benzoxazole, 132°; 2-(4-methoxyphenyl)-6-

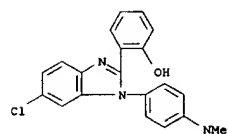
L3 ANSWER 75 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)  
 552) and 100 g. glass balls to yield a pos. reverse image. A non-reverse pos. image of the original was transferred to a second sheet by firmly pressing the sheet onto the powder image. Transfer can be aided by application of an elec. field to the second sheet in known manner.

IT 10205-99-9, Phenol, o-[6-chloro-1-[p-(dimethylamino)phenyl]-2-benzimidazolyl]- 10206-00-5, Benzimidazole, 6-chloro-1,2-bis[p-(dimethylamino)phenyl]-

(preparation of)

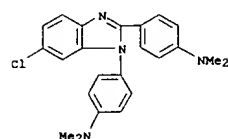
RN 10205-99-9 CAPLUS

CN Phenol, o-[6-chloro-1-[p-(dimethylamino)phenyl]-2-benzimidazolyl]- (7CI, 8CI) (CA INDEX NAME)



RN 10206-00-5 CAPLUS

CN Benzimidazole, 6-chloro-1,2-bis[p-(dimethylamino)phenyl]- (7CI, 8CI) (CA INDEX NAME)



L3 ANSWER 76 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN

ACCESSION NUMBER: 1963:462387 CAPLUS  
 DOCUMENT NUMBER: 59:62387  
 ORIGINAL REFERENCE NO.: 59:11515b-h,11516a-c  
 TITLE: Materials for electrophotographic reproduction  
 INVENTOR(S): Sues, Oskar; Tomanek, Martha; Lind, Erwin  
 PATENT ASSIGNEE(S): Kalle A.-G.  
 SOURCE: 17 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1137625		19621004	DE 1958-K35586	19580822
PRIORITY APPLN. INFO.:			DE	19580822

GI For diagram(s), see printed CA Issue.

AB Insulated layers are formed from mixts. of organic colloids and photoconductive thiazole, oxazole, or imidazole compds. 2-(4-Acetamidophenyl)-6-methylbenzothiazole (1 g.), 1 g. "Zinkresinat 357," and 0.02 g. Acid Violet 6 BN is dissolved in 30 g. glycol monomethyl ether, coated on paper, and dried. After undergoing a corona discharge, the sensitized paper is exposed under a pos. copy to a 100-w. incandescent bulb for 1/4 sec., dusted with a carbon-colored resin powder and fixed by heating. The substances used are of the formula I where X is a noncondensed aromatic ring, Y is a univalent aromatic or heterocyclic radical, Z is an O or S atom or an imino group in which the H atom is displaced by an alkyl or aryl or aralkyl radical. The following new compds. were prepared by known methods (compound and m.p. given): 2-phenylbenzothiazole, 114°; 2-(4-methoxyphenyl)benzothiazole, 134°; 2-(4-aminophenyl)benzothiazole, 157°; 2-(4-dimethylaminophenyl)benzothiazole, 173°; 2-(4-diethylaminophenyl)benzothiazole, 125°; 2-(4-methoxyphenyl)-6-methylbenzothiazole, 174°; 2-phenyl-6-methylbenzothiazole, 125°; 2-(4-aminophenyl)-6-methylbenzothiazole, 191°; 2-(4-acetylaminophenyl)-6-methylbenzothiazole, 225°; 2-(4-dimethylaminophenyl)-6-methylbenzothiazole, 196-7°; 2-(4-diethylaminophenyl)-6-methylbenzothiazole, 128°; 2-(4-diethylaminophenyl)-6-methylbenzothiazole-N,N-dimethylsulfonamide, 145°; 2-(4-diethylaminophenyl)-6-methylbenzothiazole-N,N-diethylsulfonamide, 145°; 2-(3-methoxy-4-hydroxyphenyl)-6-methylbenzothiazole, 213°; 2-(3-hydroxy-4-methoxyphenyl)-6-methylbenzothiazole, 138°; 2-(2-methoxy-6-hydroxyphenyl)-6-methylbenzothiazole, 164°; 2-(3,4-dihydroxyphenyl)-6-methylbenzothiazole, 271°; 2-(4-methoxyphenyl)-6-methoxybenzothiazole, 163°; 2-(4-diethylaminophenyl)-6-methoxybenzothiazole, 140°; 2-phenyl-6-methoxybenzothiazole, 117°; 2-(4-dimethylaminophenyl)-6-methoxybenzothiazole, 182°; 2-phenyl-6-dimethylaminobenzoethiazole, 135°; 2-(4-nitrophenyl)-6-dimethylaminobenzoethiazole, 246°; 2-(3-nitrophenyl)-6-dimethylaminobenzoethiazole, 176°; 2-(2-nitrophenyl)-6-dimethylaminobenzoethiazole, 147°;

L3 ANSWER 76 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)

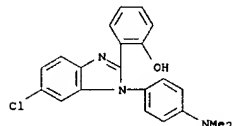
2-(4-dimethylaminophenyl)-6-dimethylaminobenzoethiazole, 230°; 2-(4-methoxyphenyl)-6-dimethylaminobenzoethiazole, 151°; 2-(4-diethylaminophenyl)-6-dimethylaminobenzoethiazole, 171°; 2-(3,4-methylenedioxyphenyl)-6-dimethylaminobenzoethiazole, 176°; 2-phenylbenzoxazole, 102°; 2-(4-methoxyphenyl)benzoxazole, 99°; 2-(4-dimethylaminophenyl)benzoxazole, 182°; 2-(4-diethylaminophenyl)benzoxazole, 132°; 2-(4-methoxyphenyl)-6-methylbenzoxazole, 91°; 2-(4-dimethylaminophenyl)-6-methylbenzoxazole, 183°; 2-(4-diethylaminophenyl)-6-methylbenzoxazole, 108°; 2-(4-methoxyphenyl)-5-chlorobenzoethiazole, 148°; 2-(4-dimethylaminophenyl)-5-chlorobenzoethiazole, 179°; 2-(4-diethylaminophenyl)-5-chlorobenzoethiazole, 160°; 2-(3-methoxy-4-hydroxyphenyl)benzimidazole, 222°; 2-(4-dimethylaminophenyl)benzimidazole, 233°; 1-methyl-2-(3,4-methylenedioxyphenyl)benzimidazole, 160°; 1-methyl-2-(4-dimethylaminophenyl)benzimidazole, 161°; 1-methyl-2-(4-diethylaminophenyl)benzimidazole, 124°; 1-methyl-2-(4-hydroxy-1-naphthyl)benzimidazole, 311°; 1-methyl-2-(4-dimethylaminophenyl)-6-methylbenzimidazole, 180°; 1-methyl-2-(3,4-methylenedioxyphenyl)-5-methylbenzimidazole, 149°; 1-methyl-2-(4-dimethylaminophenyl)-5-methylbenzimidazole, 161°; 1-methyl-2-(4-diethylaminophenyl)-5-methylbenzimidazole, 149°; 1-methyl-2-(4-methoxyphenyl)-5-nitrobenzimidazole, 171°; 1-methyl-2-(4-dimethylaminophenyl)-5-nitrobenzimidazole, 238°; 1-methyl-2-(4-diethylaminophenyl)-5-nitrobenzimidazole, 154°; 1-ethyl-2-(2-hydroxyphenyl)benzimidazole, 129°; 1-phenyl-2-(4-dimethylaminophenyl)benzimidazole, 222°; 1-phenyl-2-(4-diethylaminophenyl)benzimidazole, 148°; 1-(4-dimethylaminophenyl)-2-(2-hydroxyphenyl)-6-chlorobenzoethiazole, 218°; 1-(4-dimethylaminophenyl)-2-(4-dimethylaminophenyl)-6-chlorobenzoethiazole, 217°; 1-benzyl-2-(4-hydroxyphenyl)benzimidazole, 233°; 2-(p-dimethylaminophenyl)naphth[2',3':4,5]imidazole, 300° (decompn.); 2-(2-pyridyl)naphth[2',3':4,5]imidazole, 224-5°; 1-methyl-2-(2-hydroxyphenyl)naphth[4,5:1,2']-imidazole, 155°; 1-ethyl-2-(4-dimethylaminophenyl)-7-methoxynaphth[4,5:1,2']imidazole, 208°; 2-phenylphenanthrene-[9',10':4,5]oxazole, 200-2°; 2-(4-chlorophenyl)phenanthrene-[9',10':4,5]oxazole, 256-7°; 2-(4-methoxyphenyl)phenanthrene-[9',10':4,5]oxazole, 179-180°; 2-(4-diethylaminophenyl)phenanthrene[9',10':4,5]oxazole, 260-5°; 2-furylphenanthrene[9',10':4,5]oxazole, 228-30°; 1-methyl-2-(2-pyrryl)-5-methylbenzimidazole, 193°; 1-methyl-2-(1-naphthyl)-5-methylbenzimidazole, 114°; 2-(4-aminophenyl)benzimidazole, 240°; 2-(3-amino-4-dimethylaminophenyl)-6-methylbenzothiazole, 109°; 2-(3-nitro-4-dimethylaminophenyl)-6-methylbenzothiazole, 144°; 2-(4-dimethylaminophenyl)-6-methylbenzothiazole sulfamoyl deriv., 244°; 2-(4-dimethylaminophenyl)-6-methylbenzothiazole N-methylsulfamoyl deriv., 204°; 2-(4-dimethylaminophenyl)-6-methylbenzothiazolesulfonic acid morpholide, 189°. Also prepd. were II, m. 224, and the SO<sub>2</sub>NHET deriv. of III, m. 172°, yellow. 10205-99-9, Phenol, o-[6-chloro-1-[p-(dimethylamino)phenyl]-2-benzimidazolyl]- 10206-00-5, Benzimidazole, 6-chloro-1,2-bis[p-(dimethylamino)phenyl]-

IT 10205-99-9 CAPLUS

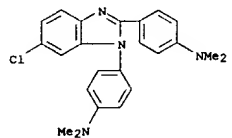
RN 10205-99-9 CAPLUS

L3 ANSWER 76 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)

CN Phenol, o-[6-chloro-1-[p-(dimethylamino)phenyl]-2-benzimidazolyl]- (7CI, 8CI) (CA INDEX NAME)



RN 10206-00-5 CAPLUS  
 CN Benzimidazole, 6-chloro-1,2-bis[p-(dimethylamino)phenyl]- (7CI, 8CI) (CA INDEX NAME)



L3 ANSWER 77 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN

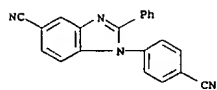
ACCESSION NUMBER: 1961:87461 CAPLUS  
 DOCUMENT NUMBER: 55:87461  
 ORIGINAL REFERENCE NO.: 55:16523h-1,16524a-1,16525a-1,16526a-d  
 TITLE: Search for chemotherapeutic amidines. XVIII. Substituted 4,4'-diamidinodiphenylamines  
 AUTHOR(S): Easson, A. P. T.  
 CORPORATE SOURCE: May & Baker Ltd., Dagenham, UK  
 SOURCE: Journal of the Chemical Society (1961) 1029-37  
 CODEN: JCSOAS; ISSN: 0368-1769  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB cf. CA 55, 8344c. A series of 4,4'-diamidinodiphenylamines with substituents in the C6H6 rings and (or) on the central amino group was described. Most of the compds. were active against Trypanosoma rhodesiense, but the activity was less against T. congolense. The most active compound was 4,4'-diamidino-2-methoxydiphenylamine-2HCl, with a therapeutic ratio of 7.5 against the latter organism. Treatment of 4-amino-3-methylbenzonitrile in C<sub>5</sub>H<sub>5</sub>N with BzCl gave 75% N-benzoyl-4-cyano-2-methylaniline, m. 153° (alc.). N-Benzoyl-4-cyano-2-nitroaniline similarly obtained m. 144-6°. A mixture of N-benzoyl-p-cyanoaniline (1 mole), 0.98 mole PCl<sub>5</sub>, and 4 moles CCl<sub>4</sub> was refluxed and PCl<sub>5</sub> and PCl<sub>3</sub> removed in vacuo. The residual imidoyl chlorides, readily hydrolyzed by moisture, were not further purified but condensed directly with various p-hydroxybenzonitriles by one of the following processes. (A) p-Hydroxybenzonitrile (1.1 moles) was added to 1 mole NaOEt in alc., 1 mole benzimidoyl chloride (Ia) in Et<sub>2</sub>O-CHCl<sub>3</sub> added, then 0.25 mole anhydrous Na<sub>2</sub>CO<sub>3</sub>, the mixture stirred 1-2 hrs. at 0°, then 3-4 hrs. at room temperature, left overnight, the solid collected, and recrystd. from alc. (B) The Na salt of 1 mole p-hydroxybenzonitrile in dry C<sub>5</sub>H<sub>5</sub>N was mixed with molten Ia, heated a few min. on the steam bath, H<sub>2</sub>O added, and the oily precipitate crystallized and recrystd. (C) The p-hydroxybenzonitrile (1 mole) and Ia were melted together, 1.5 moles anhydrous NET<sub>3</sub> added, the mixture refluxed 2 hrs., H<sub>2</sub>O and a slight excess AcOH added; the benzimidates generally separated as oils which soon crystallized. The following HC:CH.C(CN):CH.CR2 (I) were thus obtained (R, R<sub>1</sub>, R<sub>2</sub>, process, % yield, and m.p. given): H, Me, H, A, 63, 142.5°; H, Me, H, B, 39, 136-8°; H, Me, H, C, 76, 140-1°; Me, H, H, A, 45, 104-5°; Me, H, H, B, -, 102-4°; Me, Me, H, A, 79, 125-9°; Me, Me, H, B, 58, 123-6°; Me, Me, H, C, 83, 125-7°; H, Cl, H, A, 25, 135-6°; Me, Cl, H, A, 36, 124°; H, Cl, Cl, A, 24, 167-8°; H, NO<sub>2</sub>, H, A, 47, 136°; H, NO<sub>2</sub>, H, B, 69, 135-6°; H, NO<sub>2</sub>, H, C, 64, 134-6°; NO<sub>2</sub>, H, H, A, 78, 192°; NO<sub>2</sub>, NO<sub>2</sub>, H, B, 96, 198°; H, OMe, H, C, 60, 147-8°. The rearrangement of I to benzoyldiphenylamines (II) was carried out as follows except in 3 cases of I (R = R<sub>2</sub> = H, R = NO<sub>2</sub>; R = NO<sub>2</sub>, R<sub>1</sub> = R<sub>2</sub> = H; and R = R<sub>1</sub> = NO<sub>2</sub>, R<sub>2</sub> = H) I were dissolved in an equal weight of Dowtherm and the solution refluxed 1-2 hrs. II were isolated by addition of Et<sub>2</sub>O and crystallized from alc. II (R<sub>1</sub> = R<sub>2</sub> = H, R

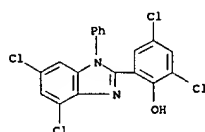
L3 ANSWER 77 OF 81 CAPLUS COPYRIGHT 2006 ACS ON STN (Continued)  
 = Me) was not characterized but was hydrolyzed directly to the corresponding diphenylamine. I (R = R2 = H, R1 = NO2) rearranged smoothly in refluxing anisole and even in refluxing C5H5N, tars being formed at higher temps. Two I (R = NO2, R1 = R2 = H; R = R1 = NO2, R2 = H) were unaffected at the lower temps. and decomposed at 200°. The following I, HC:CH.C(CN):CH.CR:CNBZ:CR1.CH:CH(CN).CH:CH:CR2, were thus obtained (R, R1, R2, 1 yield, and m.p. given): H, Me, H, 84, 165-7°; Me, Me, H, 98, 159-60°; H, Cl, H, 84, 170-2°; Me, Cl, H, 80, 167-8°; H, Cl, Cl, 54, 204-5°; H, NO2, H, 99, 234-7°; H, OMe, H, 88, 152-4°. CR:CH.C(CN):CH.CR:CNHCH:CH:CH.C(CN).CH:CR1 (III) were next. prepd. Comps. nos. 1-5 (see further) were prepd. by hydrolysis of the corresponding II. A 10% NaOH soln. in 75% (CH2OH)2 was added in 1 portion to the II compd. in 3-4 parts refluxing ethylene glycol, the mixt. refluxed a few min., and the product pptd. by H2O and recrystd. (AcOH). Compd. no. 6A was prepd. by hydrolysis of the corresponding II with K2CO3 in ethylene glycol-anisole contg. a little H2O. The product resisted purification but an almost theoretical yield of pure nitro compd. (no. 6B) was obtained as follows.  
 4,4'-Dicyanodiphenylamine (40 g.) was ground with 200 ml. AcOH, 400 ml. concd. HNO3 added, and after 25 min. H2O added to yield compd. no. 6B, crystd. from anisole: no. 7 (83%) was obtained by addn. of 45 g. reduced Fe to 24 g. 4,4'-dicyano-2-nitrodiphenylamine in 60 ml. refluxing HCONMe2 and 40 ml. AcOH, adding after 0.5 hr. 400 ml. hot H2O, filtering the mixt. and working up sep. the ppt. and the filtrate. Comps. nos. 12-15 were prepd. by demethylation of 4,4'-dicyano-2-methoxydiphenylamine to give the OH deriv. At the required temp. (197-203°), part of the mixt. tended to sublime, a little Dowtherm was added, after 4 hrs. the mixt. stirred with dil. alc., and the solid dissolved in HCONMe2-dioxane. Any MeO compd. was pptd. by excess 5N NaOH: acidification gave the 2-OH deriv. The other 2-alkoxy derivs. were obtained by alkylation of this with the appropriate halide and K2CO3 in refluxing Me2CO. The following III were thus obtained (no. R, R1, 1 yield, and m.p. given): (1), Me, H, 85, 222°; (2), Cl, H, 60, 211°; (3), Me, Me, 38, 199-200°; (4), Me, Cl, 73, 198°; (5), OMe, H, 86, 145-6°; (6A), NO2, H, -, 186-91°; (6B), NO2, H, 95, 191°; (7), NH2, H, 83, 238-9°; (8), NHAc, H, 75, 238-40°; (9), HNBz, H, -, 233-5°; (10), Cl, Cl, -, 243-4°; (11), OH, H, 55, 257-8°; (12), OEt, H, 76, 169-70°; (13), OPr, H, 73, 135-6°; (14), OCH2CH2CH2, H, 70, 135-6°; (15), Bu, H, 80, 114-15°. 1,3-Timethylenedibis(p-toluenesulfonate) (85%), m. 95-6°, 1,5-pentamethylene bis(p-toluenesulfonate) (85%), m. 80° (alc.), and 2-hydroxyethyl p-toluenesulfonate, a sirup (phenylurethan m. 135-6°), were prepd. by the Ag salt method. N-Alkyl derivs. were prepd. by treating 1 mole 4,4'-dicyanodiphenylamine with 1.2-1.5 moles requisite alkyl p-toluenesulfonate, 1 mole K2CO3, anisole, and a trace of Cu bronze under reflux, the H2O removed, and replaced by anisole, after refluxing 3-4 hrs. the solvent added, the mixt. filtered, the solvent removed, and the residue recrystd. from alc. N-Aryl-4,4'-dicyanodiphenylamines were prepd.

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 CHCl3, 2, 2HCl, aq. alc. and Et2O, 63, 330°; H, Et, H, alc., 1, 2HCl, aq. alc.-Et2O, 57, above 300°; Cl, H, H, CHCl3, 3, 2HCl, H2O, 38, above 300°; H, Ph, H, CHCl3-dioxane, 6, 2HCl, aq. Me2CO, 70, above 300°; H, Bz, H, CHCl3, 12, 2HCl, aq. Me2CO, 31, 280°; Me, Me, H, CHCl3, 7, 2HCl, aq. Me2CO-alc., 47, 285°; H, Bu, H, CHCl3, 4, diacetate, aq. Me2CO, 63, 275-80°; H, allyl, H, CHCl3, 5, diacetate, H2O or aq. Me2CO, 67, 271-3°; H, Pr, H, CHCl3-Et2O, 1, 2HCl, aq. Me2CO, 78, 232-8°; H, p-C6H4C(-NH)NH2, H, CHCl3-dioxane, 10, 3HCl, aq. Me2CO, 50, 370-5°; NH2, H, H, alc., 6, 2HCl, H2O, 54, 310°; H, (CH2)3, H, alc., 2, 4HCl, aq. Me2CO, 67, 300-10°; H, p-C6H4NH2, H, alc., 6, diacetate, aq. Me2CO, 37, 169°; Me, Bz, Cl, alc., 1, diacetate, AcOH, -, 225-30°; Me, H, Cl, dioxane, 2, 2HCl, H2O, 70, above 350°; H, C6H13, H, CHCl3-Et2O, 6, diacetate, aq. Me2CO, 63, 265°; Cl, H, Cl, CHCl3-Et2O, 4, 2HCl, 40% alc., 90, above 350°; Me, H, Me, dioxane, 5, 2HCl, aq. Me2CO, 75, above 350°; OMe, H, H, CHCl3, 3, 2HCl, aq. Me2CO, 64, 110-15°; OH, H, H, dioxane-Et2O, 4, 2HCl, aq. Me2CO, 54, 338-40°; OEt, H, H, CHCl3, 6, 2HCl, aq. Me2CO, 85, 115-17°; OBu, H, H, CHCl3, 1, 2HCl, aq. Me2CO, 85, 133-4°; OCH:CHMe, H, H, CHCl3, 3, 2HCl, aq. Me2CO, 79, 108-10°; OPr, H, H, CHCl3, 2, 2HCl, aq. Me2CO, 78, 125-8°; H, NO, H, CHCl3, -, 2HCl, aq. Me2CO, 88, greater than 300°; OMe, Me, H, CHCl3, 2, dipropionate, aq. Me2CO, 44, 193-201°; OMe, NO, H, CHCl3, -, diacetate, aq. Me2CO, 69, 192-3°; Me, NO, H, CHCl3, -, diacetate, aq. Me2CO, 93, 227-8°. Addn. of 5.5 g. NaNO3 in 15 ml. H2O to a cold soln. of 4,4'-diamidino-2-methoxydiphenylamine 2HCl in H2O pptd. the sparingly sol. nitrite as a solid. 2N HCl (40 ml.) added during 5-10 min. and the ppt. redissolved, the soln. kept 1 hr., 25 ml. 5N NaOH added, the nitrosoamine base collected and treated with AcOH gave 8 g. of the diacetate. The diamidino was prepd. in CHCl3-dioxane and 76% 5-amidino-1-(p-amidinophenyl)benzimidazole-2HCl collected, m. 305° (aq. Me2CO). 5-Amidino-1-(p-amidinophenyl)-2-methylbenzimidazole-2HCl (76%) (H2O) and 5-amidino-1-(p-amidinophenyl)benzo-1,2,3-triazole-2HCl (78%) (Me2CO-dil. HCl) were prepd. similarly.  
 IT 102703-74-2, 5-Benzimidazolecarbonitrile, 1-(p-cyanophenyl)-2-phenyl- (preparation of)  
 RN 102703-74-2 CAPLUS  
 CN 5-Benzimidazolecarbonitrile, 1-(p-cyanophenyl)-2-phenyl- (6CI) (CA INDEX NAME)



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 by treatment of 1 mole 4,4'-dicyanodiphenylamine in the presence of K2CO3 and a trace of Cu bronze in refluxing PhNO2 4-6 hrs. with an excess of (a) PhI, (b) p-bromonitrobenzene, or (c) p-bromobenzonitrile. The products from (a) or (b) were isolated by addn. of CHCl3 and evapn. The solid from (c) was collected, washed, and the dried solid extd. with hot HCONMe2. 4,4'-Dicyano-N-(p-nitrophenyl)-diphenylamine (1.7 g.) in 15 ml. refluxing HCONMe2 and 2.5 ml. AcOH treated with reduced Fe gave 1.25 g. amine. The following N-substituted 4,4'-dicyanodiphenylamines were thus obtained (N-substituent, solvent for crystn., 1 yield, and m.p. given): Me, alc., 89, 153°; Et, alc., 55, 122-3°; Pr, alc., 63, 96°; allyl, alc., 71, 111-12°; Bu, Et2O, 41, 80-1°; C6H13, alc., 60, 77°; (CH2)3, dioxane, 50, 211-12°; Ph, alc., 78, 190-1°; p-O2NC6H4, PhNO2, 80, 346°; p-H2NC6H4, -, 73, 275°; p-MCC6H4, HCONMe2, 57, 342°. 4,4'-Dicyano-2-methoxydiphenylamine (1 g.), 1 g. p-MeC6H4SO3Me, 0.8 g. K2CO3, a trace of Cu bronze, and 10 ml. anisole refluxed 3 hrs. gave 0.95 g. 4,4'-dicyano-2-methoxy-N-methyldiphenylamine, m. 149-50° (alc.). 4,4'-Dicyano-2-methyldiphenylamine and p-MeC6H4SO3Me gave 94% 4,4'-dicyano-2,N-dimethyldiphenylamine, m. 112° (alc.). Refluxing 5 g. 2-amino-4,4'-dicyanodiphenylamine in 25 ml. 98-100% HCO2H 1.5 hrs. gave 5-cyano-1-(p-cyanophenyl)benzimidazole, m. 289° (AcOH). 2-Amino-4,4'-dicyanodiphenylamine (12.5 g.), 50 ml. C5H5N, and 30 ml. Ac2O refluxed 0.5 hr. gave 12 g. 2-acetamido deriv., m. 238-40° (decompn.), converted by refluxing 1.5-2.0 hrs. in 40 ml. Dowtherm into 8.4 g. 5-cyano-1-(p-cyanophenyl)-2-methylbenzimidazole, m. 233°. 5-Cyano-1-(p-cyanophenyl)-2-phenylbenzimidazole similarly prepd., m. 182°, solidified, and m. 199°. 2-Amino-4,4'-dicyanodiphenylamine (10 g.), 100 ml. alc., 5 ml. 7.5N isethionic acid, 10 ml. H2O, and 5 ml. concd. HCl treated at 10° with 5 g. NaNO2 in 10 ml. H2O and 5 ml. alc. and kept 3 hrs. at room temp. gave 95% 5-cyano-1-(p-cyanophenyl)-2,3-triazole, m. 284° (dioxane). 4,4'-Dicyano-2-nitrodiphenylamine (1 g.), 2 ml. ClCO2Et, 1 g. K2CO3, and 10 ml. Me2CO refluxed 2 hrs. gave 0.8 g. 4,4'-dicyano-N-ethoxycarbonyl-2-nitrodiphenylamine, yellow crystals, m. 123-3° (alc.). Similarly, 4,4'-dicyano-2-hydroxydiphenylamine gave 4,4'-dicyano-N-ethoxycarbonyl-2-ethoxycarbonyloxydiphenylamine, m. 131.5-2.5° (alc.). If the reaction was carried out with an excess of dinitrile, the product was 6-cyano-3-(p-cyanophenyl)benzoxazolone (IV), m. 290°. IV was best prepd. by the following procedure. NaOH (1.46 g.) in a little H2O and sufficient alc. to make 24 ml. added to 13.8 g. of the diethoxycarbonyl compd. in 50 ml. dioxane and 50 ml. alc., left 2-3 hrs., concd. HCl added, and the whole dild. with H2O gave 8.8 g. IV. The nitriles were converted into the amidines (V), through the imidates, by the usual Pinner procedure. V were often isolated as HCl salts. Some of the more sol. salts were not too easily crystd. In such cases the bases were isolated and converted into the acetates. The following diamidines, HC:CH.(H2NC(-NH))C:CH.CR:CHNHC:CR2.CH:C(C(-NH)NH2).CH:CH, were thus prepd. (R, R1, R2, solvent, time in days, amidine salt, crystn. solvent, yield, and m.p. given): Me, H, H, CHCl3, 4, 2HCl, H2O, 94, -, H, Me, H,

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 ACCESSION NUMBER: 1958:62906 CAPLUS  
 DOCUMENT NUMBER: 52:62906  
 ORIGINAL REFERENCE NO.: 52:11348e-g  
 TITLE: Insecticides and disinfectants  
 INVENTOR(S): Jerschel, Dietrich  
 PATENT ASSIGNOR(S): C. H. Boehringer Sohn  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:  
 PATENT NO. KIND DATE APPLICATION NO. DATE  
 DE 888032 19530827 DE 1951-B17224 19511019  
 AB Halogenated 2-arylbenzimidazoles containing at least 2 halogen atoms and, possibly, hydroxyl groups, are valuable insecticides and disinfectants of low toxicity. N1 can be substituted with alkyl, aralkyl, or aryl groups. To obtain the products, substituted o-phenylenediamines are treated with a substituted BxH in the presence of a dehydrogenating agent.  
 The following substances have been synthesized (yields and m.p. given): 2-(2-hydroxy-3,5-dichlorophenyl)benzimidazole (I) 85%, 299-300°; 2-(2,4-dichlorophenyl)-4,6-dichlorobenzimidazole, 60%, 160-1°; 2-(2-hydroxy-3,5-dichlorophenyl)-4,6-dichlorobenzimidazole (II), 65%, 231-2°; 1-methyl-2-(2,4-dichlorophenyl)-4,6-dichlorobenzimidazole, 90%, 186-7°; 1-methyl-2-(2-hydroxy-3,5-dichlorophenyl)-4,6-dichlorobenzimidazole, 85%, 276-8°; 1-benzyl-2-(2-hydroxy-3,5-dichlorophenyl)-4,6-dichlorobenzimidazole, 73%, 191-2°; and 5,6-dichloro-2-phenylbenzimidazole (III), 60%, 145°. The fungicidal and bactericidal action of the compds. has been tested. Inhibits completely the growth of Staphylococcus in a dilution of 1:17,000 and II in a dilution of 1:805,000. Thus, 10 ml. of a 1% solution of II at pH 8.5 is diluted with 1 l. H2O to give an excellent disinfectant, and 1 g. per 3-10 l. H2O gives an effective spraying fungicide.  
 IT 101891-87-2, Phenol, 2,4-dichloro-6-(4,6-dichloro-1-phenyl-2-benzimidazolyl)- (preparation of)  
 RN 101891-87-2 CAPLUS  
 CN Phenol, 2,4-dichloro-6-(4,6-dichloro-1-phenyl-2-benzimidazolyl)- (6CI) (CA INDEX NAME)



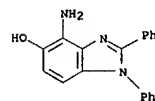


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 ACCESSION NUMBER: 1954:7161 CAPLUS  
 DOCUMENT NUMBER: 48:7161  
 ORIGINAL REFERENCE NO.: 48:1318a-1, 1319a-1, 1320a-1  
 TITLE: The nature of light-induced degradation products of diazo derivatives. IV. The light reaction of o-quinonediazides: photosyntheses of cyclopentadiene derivatives  
 AUTHOR(S): Sus, Oskar; Hoffmann, Hinrich; Rosenberger, Siegfried  
 CORPORATE SOURCE: Kalle & Co., Wiesbaden-Biebrich, Germany  
 SOURCE: Ann. (1953), 579, 133-58  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 48:7161  
 GI For diagram(s), see printed CA Issue.  
 AB cf. C.A. 42, 41541. 6-Nitro-1,2-naphthoquinone-2-diazide (2-diazo-6-nitro-1(2H)-naphthalenone) (I) in 4.5 l. AcOH and 240 cc. H<sub>2</sub>O was filtered through C and the filtrate, in sealed fermentation vessels, exposed to sunlight or UV light at 0°. The reaction was complete when an aliquot no longer coupled with phloroglucinol to form an azo dye. The solution, concentrated in vacuo, gave about 8.5 g. (crude) 5-nitro-1-indenecarboxylic acid (II), pale yellow crystalline threads, m. 188-9° (from AcOH), which when heated to 185-210° gave CO<sub>2</sub> and 5-nitroindene (III), m. 74-5° (by sublimation), also prepared by heating I in HCONMe<sub>2</sub> at 45-90°. Hydrogenation of III in EtOH by shaking with Raney Ni, steam-distilling, and cooling to 0° gave 5-aminohydrindene, m. 36°; Ac derivative, m. 106° (from C<sub>6</sub>H<sub>6</sub>-gasoline). 1-Amino-2-hydroxy-7-methoxynaphthalene (10 g.) in 10% alc. HCl with 10 cc. iso-AmOH gave 9.35 g. of an HCl salt, which, when stirred with H<sub>2</sub>O or on attempted recrystn. from much H<sub>2</sub>O gave 7-methoxy-1,2-naphthoquinone-1-diazide, C<sub>11</sub>H<sub>8</sub>O<sub>2</sub>N<sub>2</sub>, yellow needles, m. 103-4° (from 50% alc.), which when irradiated 8 h. gave 5-methoxy-3-indenecarboxylic acid (IV), m. 160-1° (purified by solution in aqueous NaHCO<sub>3</sub>, precipitation with HCl, and crystallization from C<sub>6</sub>H<sub>6</sub> or aqueous MeOH); the corresponding 5-methoxyindene (V), b.p. 155-60°, with nerolinlike odor, was formed by heating IV in HCONMe<sub>2</sub> under N. When the decarboxylation of IV by direct heating at about 185°, was attempted, C<sub>22</sub>H<sub>2</sub>O<sub>6</sub>, a dimer of IV, m. 235-6°, was formed. IV (0.3 g.) in AcOEt with CH<sub>2</sub>N<sub>2</sub> in Et<sub>2</sub>O, followed by shaking successively with 2% AcOH, H<sub>2</sub>O, 5% NaHCO<sub>3</sub> and H<sub>2</sub>O, drying the Et<sub>2</sub>O solution with Na<sub>2</sub>SO<sub>4</sub>, and evaporating gave Me 1,3a,4,9a-tetrahydroindeno[1,2-c]pyrazole-4-carboxylate (VI). The HCl salt of 1-amino-2-hydroxyphenanthrene (VII) in 220 cc. MeOCH<sub>2</sub>CH<sub>2</sub>OH, 20 cc. 32% HCl and 40 cc. H<sub>2</sub>O, treated at 50° with 8 cc. 40% NaNO<sub>2</sub> gave, on direct crystallization a red modification of 1,2-phenanthraquinone-1-diazide (VIIIa), C<sub>14</sub>H<sub>8</sub>O<sub>2</sub>N<sub>2</sub> m. 151° (decomposition). Diazotization of VII carried out with AmONO at 25° (or below), with subsequent cooling at about 0°, gave a yellow-green modification (VIIIb), small rods, m. 150-1° (decomposition). VIIIb could be recrystd. by rapid solution in warm MeOCH<sub>2</sub>CH<sub>2</sub>OH containing a few drops HCl, filtering through C and treating the filtrate at 60° with 18%

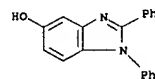
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 readily to the free acid, C<sub>7</sub>H<sub>7</sub>O<sub>2</sub>N<sub>2</sub> (XVII), colorless needles, m. 283-4° (decompn.), giving a play of colors in aq. NaHCO<sub>3</sub> (turning from yellow to blue gray to blue-violet), a deep blue color with FeCl<sub>3</sub>, and a red color when coupled with XVI. XVII was also formed by irradiating XIV in H<sub>2</sub>O, in the absence of AcOH. XVII was shown to have properties totally different from those of 1-methyl-6,7-dihydroxy-1H-benzotriazole (XVIII). 2,3,4-Br(MeO)<sub>2</sub>C<sub>6</sub>H<sub>2</sub>NO<sub>2</sub> and MeNH<sub>2</sub> gave the 6-MeNH analog; this was catalytically reduced to 2,3,4-MeNH(MeO)<sub>2</sub>C<sub>6</sub>H<sub>2</sub>NO<sub>2</sub> and diazotized, and treated with HBr to give XVIII-HBr, m. 210°. By coupling 1-phenyl-5-hydroxybenzimidazole (XIX) in NaOH and pyridine with p-HO<sub>3</sub>SC<sub>6</sub>H<sub>4</sub>N<sub>2</sub>Cl followed by acidification, the corresponding (unanalyzed) ochre-colored azo dye was formed, which, in NaOH with Na<sub>2</sub>SO<sub>4</sub>, followed by acidification with AcOH, gave the 4-NH<sub>2</sub> deriv. of XIX, colorless prisms, m. 211-12° (decompn.), yielding, on diazotization (XX), yellow, m. 162-3° (from 90% EtOH). Irradiated 2 h. in AcOH and H<sub>2</sub>O, XX gave C<sub>15</sub>H<sub>12</sub>O<sub>3</sub>N<sub>2</sub> (XXa), m. 202-6°, contg. an Ac group, and apparently analogous to XV, and, like the latter, could not be decarboxylated by heating in N. 2,4-H<sub>2</sub>N(O<sub>2</sub>)C<sub>6</sub>H<sub>3</sub>NHPh (79.6 g.) triturated with 38 g. BzH, heated 15 min. with PhNO<sub>2</sub> cooled, and treated with 50 cc. EtOH and HCl gas, gave 58 g. 5-nitro-1,2-diphenylbenzimidazole m. 180-1° (from AcOH) readily reduced to the 5-NH<sub>2</sub> analog, m. 191-2°, which, when diazotized in aq. H<sub>2</sub>SO<sub>4</sub> at 0°, followed by heating (until there was no further coupling with R acid), dild. with H<sub>2</sub>O, and neutralized with NaOH gave the 5-hydroxy analog, C<sub>19</sub>H<sub>14</sub>O<sub>2</sub>N<sub>2</sub> (XXI), m. 249-50° (decompn.). With p-HO<sub>3</sub>SC<sub>6</sub>H<sub>4</sub>N<sub>2</sub>Cl, XXI gave the azo dye, C<sub>25</sub>H<sub>18</sub>O<sub>4</sub>N<sub>4</sub>S (XXII), ochre-colored, charring when heated. XXII in aq. NaOH with Na<sub>2</sub>SO<sub>4</sub> gave the 4-amino deriv., C<sub>19</sub>H<sub>15</sub>O<sub>3</sub>N<sub>3</sub> (XXIII), of XXI, m. 206-9°, isolated as the yellow Na salt (XXIIIa), the HCl salt, or as the AcOH salt (C<sub>21</sub>H<sub>19</sub>O<sub>3</sub>N<sub>3</sub>, pale yellow prisms, m. 211-12°, losing AcOH when kept in vacuo over KOH (giving XXIII)). XXIIIa (prepd. from 13.5 g. XXI) in 50 cc. 16% HCl, filtered through C, cooled to 0° and treated dropwise with NaNO<sub>2</sub> gave the 2-Ph deriv. of XX, orange needles, m. 157-8° (decompn.), which when irradiated in aq. AcOH gave the 2-Ph deriv. (XXIV) of XXa, colorless rhombs, m. 222-3°. 1,2-Naphthoquinone-2-diazide-5-sulfonyl chloride (XXV) (Ger. 865,410) and PhNH<sub>2</sub> in C<sub>6</sub>H<sub>6</sub> gave the corresponding 5-sulfanilide (XXVI), C<sub>16</sub>H<sub>11</sub>O<sub>3</sub>N<sub>3</sub>S, yellow needles, m. 168-9° (from C<sub>6</sub>H<sub>6</sub> or EtOH), which when irradiated in dioxane contg. HCl gave 4-phenylsulfamoyl-1-indenecarboxylic acid, colorless, m. 183-4° (decompn.) (from MeCO<sub>2</sub>-H<sub>2</sub>O), Me ester, m. 188-9°. Prepd. similarly to XXVI was 4-sulfamoyl-1,2-naphthoquinone-2-diazide golden yellow, m. 162°, giving, on irradiation, 3-phenylsulfamoyl-1-indenecarboxylic acid, pale yellow, m. 151-3° (from AcOEt by the addn. of petr. ether). To 1.6 g. XXVI in 20 cc. dioxane, 3.1 cc. 2N NaOH, and 8 cc. H<sub>2</sub>O (at or below 20°) was added 1.6 g. XXV in 10 cc. dioxane, giving N,N-bis(6-diazo-5,6-dihydro-5-oxo-1-naphthyl)sulfonyl-aniline (XXVII), alkali-insol., m. 145.5-6.0° (decompn.) (from AcOH). Irradiated at 0° in sunlight, XXVII gave the expected deriv., C<sub>21</sub>H<sub>15</sub>O<sub>3</sub>N<sub>2</sub>S, m. 249-50° (decompn. from AcOH). From Na 6-hydroxy-1,2,3,4-tetrahydro-7-naphthalenesulfonate and p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Cl was formed the 6-tosylate (isolated as the Na salt, m. 128-9° (decompn.)), converted by PCl<sub>5</sub> into the sulfonyl chloride, C<sub>17</sub>H<sub>17</sub>O<sub>5</sub>S<sub>2</sub>Cl, hexagons, m. 133-4°, from which was prepd. the 7-sulfanilide, prisms, m. 157-8°; this on sapon. with NaOH in alc. gave 6-hydroxy-1,2,3,4-tetrahydro-7-naphthalenesulfanilide (XXVIII), thin rhombs, m. 183-5° (Na salt (XXVIIIa), nacreous hexagons). To 38 g. XXVIIIa in 400 cc. 2.5% NaOH, 400 cc. dioxane and 5 cc. pyridine at 0° was added very gradually PhN<sub>2</sub>Cl (from 17 g. PhNH<sub>2</sub>·HCl), acidified with 30% HCl, and crystd. from

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 HCl to incipient cloudiness. VIII (presumably either form) in dioxane contg. 50% AcOH at 10-18°, stirred and irradiated with a Hg vapor lamp gave benz-6,7-indene-3-carboxylic acid, pale ochre, m. 249-50° (decompn.) (from AcOH); Me ester, colorless, m. 139°. Benz-6,7-indene m. 42° (from Et<sub>2</sub>O). A mixt. of α-ClO<sub>7</sub>CH<sub>2</sub>CO<sub>2</sub>H (15 g.), 15 g. 2,5-O<sub>2</sub>N(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>CHO, 45 cc. redistd. Ac<sub>2</sub>O, and dry Et<sub>3</sub>N under N, heated 12 h. at 100° gave 4-hydroxychrysene (IX) (not purified) (cf. Cook and Schoental, C.A. 39, 4603-5). IX (0.6 g.) in 200 cc. EtOH and 20 cc. 10% NaOH at 2° with 1.5 cc. PhN<sub>2</sub>Cl (from 1 cc. PhNH<sub>2</sub>) gave the 3-phenylazo deriv. of IX, reddish brown hexagonal plates, m. 248-9° (from AcOH or dioxane) which on hydrogenation with Raney Ni, soln. in hot HCONMe<sub>2</sub> filtration through C, and treatment with EtOH gave the 3-NH<sub>2</sub> deriv. of IX, colorless hexagons, not m. below 400°, 0.4 g. of which in 7.5 cc. HCONMe<sub>2</sub> and 1.25 cc. HCl at 0-5° was treated with 2N NaNO<sub>2</sub> giving 0.37 g. 1,2-chrysenequinone-1-diazide (X) golden yellow, darkening at 150° and charring without m., coupling very slowly with phloroglucinol in NH<sub>4</sub>OH giving a red compd. In AcOH, in direct sunlight, X gave naphth[2,1-e]indene-1-carboxylic acid, prismatic rectangles (from AcOH or EtOH) decomp. between 230 and 270° depending on the rate of heating; this on decarboxylation in HCONMe<sub>2</sub> gave cyclopentadienophenanthrene, C<sub>17</sub>H<sub>12</sub>, colorless, m. 164-5° giving a blue color with concd. H<sub>2</sub>SO<sub>4</sub>. 4-Nitroso-5-hydroxy-2-phenyl-2Henzotriazole (11 g.) (cf. Fries and Roth, C.A. 6, 2413) in EtOH hydrogenated with Raney Ni at 70° and 60 atm. and treated with HCl, gave 5.7 g. HCl salt of the 4-NH<sub>2</sub> analog, C<sub>12</sub>H<sub>10</sub>N<sub>4</sub>Cl (sic), cream-colored, m. 257-60°, which in HCONMe<sub>2</sub> with aq. NaNO<sub>2</sub> at 0° gave XI, golden yellow, m. 200-1° (decompn.) (from dioxane), forming an azo dye with phloroglucinol which gave typical metallic lakes; XI, irradiated with a Hg vapor lamp, gave (XII), rectangles, m. 225° (decompn.) (Me ester, m. 119-20°); decarboxylation of which, either by heating directly or in HCONMe<sub>2</sub> gave the corresponding indene, C<sub>11</sub>H<sub>8</sub>N<sub>3</sub>, needles, m. 71° (from MeOH). From 5-amino-1-methyl-1H-benzotriazole (Pinnow and Koch, Ber. 30, 2852 [1897]) in hot aq. NaOH, with NaNO<sub>2</sub>, followed at 0° by the dropwise addn. of 2N H<sub>2</sub>SO<sub>4</sub>, and subsequently by addn. of an excess concd. H<sub>2</sub>SO<sub>4</sub> and heating 5 h. at 115-20° (until the mixt. no longer coupled with R acid) there was formed 13.1 g. 5-hydroxy-1-methyl-1H-benzotriazole, C<sub>7</sub>H<sub>7</sub>ON<sub>3</sub>, m. 192-3°. which with HCl and NaNO<sub>2</sub> gave the 4-nitroso deriv., C<sub>7</sub>H<sub>6</sub>O<sub>2</sub>N<sub>4</sub>, platelets, decomp. about 227° (from AcOH); this when hydrogenated gave the 4-amino deriv. (XIII) isolated as the HCl salt (XIIIa), C<sub>7</sub>H<sub>8</sub>ON<sub>4</sub>·HCl, colorless prisms (from EtOH contg. HCl) turning yellow on drying, carbonizing gradually at about 210°, and losing HCl when heated 24 h. at 125° in a drying pistol over KOH and P<sub>2</sub>O<sub>5</sub> giving XIII, C<sub>7</sub>H<sub>8</sub>ON<sub>4</sub>, m. 234-6° (decompn.). Treated at 0° with HCl and NaNO<sub>2</sub>, XIIIa gave (XIV), yellow needles, m. 170-1° (decompn.) (from H<sub>2</sub>O or EtOH). Irradiated in 300 cc. AcOH and 15 cc. H<sub>2</sub>O, 1 g. XIV gave 0.55 g. of compd. XV, colorless plates, m. 220-1°, not decarboxylated at 250°, and which failed to react with CH<sub>2</sub>N<sub>2</sub>, but which gave a deep red color with "Fast Blue salt BB" (XVI). Deacetylation of XV with 16% HCl gave the HCl salt of the corresponding acid, prisms, hydrolyzing

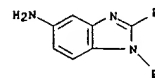
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 dioxane contg. 5% AcOH giving 19 g. 8-Ph<sub>2</sub> deriv. of XXVIII, m. 237-8° (decompn.), which when reduced with Hoechst Ni catalyst in alc. at 60 atm. and 80°, dissolved in 8% NaOH, washed with Et<sub>2</sub>O, filtered through C, and acidified with AcOH gave 9 g. of the 8-NH<sub>2</sub> deriv. of XXVIII, m. 160° (never completely purified because of its ready oxidn.), which, by the usual method was converted into the diazide (XXIX) orange-yellow, m. 160-5° (decompn.), giving, when irradiated 1.5 h. in sunlight, XXX, C<sub>16</sub>H<sub>15</sub>NO<sub>3</sub>S, tan amorphous powder. To 12 g. 1,2,3-H<sub>2</sub>N(HO)C<sub>10</sub>H<sub>5</sub>CONHPh in 540 cc. EtOH was added 4.2 g. Cu(OAc)<sub>2</sub> in 100 cc. glacial AcOH and 42 cc. 2N NaNO<sub>2</sub>; the mixt. warmed to 50-60° gave the expected oxo-diazo compd., yellow, m. 167-8° (from AcOH) giving after an 11 h. irradiation the indene deriv., C<sub>17</sub>H<sub>13</sub>O<sub>3</sub>N<sub>3</sub>, m. 141° (decompn.) (best purified by soln. in aq. NaHCO<sub>3</sub> and pptn. with HCl); 2-indenecarboxanilide, C<sub>16</sub>H<sub>13</sub>ON, irregular hexagons, m. 180-1°. 858502-31-5, 5-Benzimidazolol, 4-amino-1,2-diphenyl- (and deriva.)  
 IT 858502-26-8, 5-Benzimidazolol, 1,2-diphenyl- (and dye thereof)  
 RN 858502-26-8 CAPLUS  
 CN 5-Benzimidazolol, 1,2-diphenyl- (5CI) (CA INDEX NAME)



IT 858502-26-8, 5-Benzimidazolol, 1,2-diphenyl- (and dye thereof)  
 RN 858502-26-8 CAPLUS  
 CN 5-Benzimidazolol, 1,2-diphenyl- (5CI) (CA INDEX NAME)

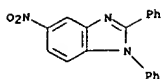


IT 350235-81-3, Benzimidazole, 5-amino-1,2-diphenyl-  
 853791-71-6, Benzimidazole, 5-nitro-1,2-diphenyl- (preparation of)  
 RN 350235-81-3 CAPLUS  
 CN 1H-Benzimidazol-5-amine, 1,2-diphenyl- (9CI) (CA INDEX NAME)



RN 853791-71-6 CAPLUS  
 CN Benzimidazole, 5-nitro-1,2-diphenyl- (5CI) (CA INDEX NAME)

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ACCESSION NUMBER: 1953:6359 CAPLUS  
 DOCUMENT NUMBER: 47:6359  
 ORIGINAL REFERENCE NO.: 47:1132f-1,1133a-1,1134a-g  
 TITLE: Some benzimidazole derivatives  
 AUTHOR(S): Feltelson, B. N.; Manalis, P.; Moualim, R. J.; Petrow,

CORPORATE SOURCE: Britt, Drug House, Ltd., London  
 SOURCE: Journal of the Chemical Society (1952) 2389-98  
 CODEN: JCSQ9; ISSN: 0368-1769

DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 AB (CH<sub>2</sub>)<sub>10</sub>(CO<sub>2</sub>H)<sub>2</sub> (1.1 g.), 900 mg. o-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub>, and 4 N HCl, heated 5 h.

at 135°, give decamethylenebis(2-benzimidazole) (I), m. 298-9° (di-HCl salt, m. 261-3°). I (4.69 g.) in concentrated H<sub>2</sub>SO<sub>4</sub>, treated at 0° with 3.62 g. KNO<sub>3</sub> and stirred 2 h., yields the 5-NO<sub>2</sub> derivative (II), with 2 mols. H<sub>2</sub>O (sulfate, 5.77 g.), m. 255-6°). The following homologs of II were prepared (in given): 2 (III), with 2 mols.

H<sub>2</sub>O, m. 289-90°, 77%; 3, m. 165°, 69%; 4, m. 263°, 80%; 5, with 2 mols. H<sub>2</sub>O, m. 208°, 87%; 6, with 2 mols. H<sub>2</sub>O, m. 248-9°, 78%; 8, m. 136°, 93%. III (2 g.) in 100 mL MeOCH<sub>2</sub>CH<sub>2</sub>OH, reduced at room temperature over Raney Ni and the solution

treated with 4 mL. concentrated HCl, gives 85% ethylenebis(5-amino-2-benzimidazole)-4HCl, m. 345°; the following homologs were similarly prepared (n given): 3, m. above 300°, 81%; 4, m. above 300°, 86%; 5, m. above 300°, 62%; 6, m. above 345°, 73%; 8, m. 324-5°, 86%. (CH<sub>3</sub>COCl)<sub>2</sub> (5.1 g.), 9.2 g. o-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>, and 50 mL. C<sub>6</sub>H<sub>6</sub>, refluxed until HCl evolution ceases, give 83% fumarobis(o-nitroanilide) (IV), pale yellow, m. 283°; reduction of 4 g. IV in 150 mL. hot dioxane over Raney Ni and refluxing 2 h. with 5 N alic. HCl give ethylenebis(2-benzimidazole)-2HCl.2H<sub>2</sub>O, m. 330° (CH<sub>3</sub>CH<sub>2</sub>COCl)<sub>2</sub> (from 2 g. acid) and 4.1 g. 2,4-O<sub>2</sub>N(C<sub>6</sub>H<sub>3</sub>NH<sub>2</sub>), heated 1 h. at 190°, give 57% adipobis(4-cyano-2-nitroanilide), yellow, m. 221-2°; reduction over Raney Ni in hot EtOCH<sub>2</sub>CH<sub>2</sub>OH and heating 1 h. with 5 mL. concentrated HCl

gives the di-HCl salt, brown, m. 203°, of tetramethylenebis(5-cyano-2-benzimidazole), with 2 mols. H<sub>2</sub>O, m. 260-1°; octamethylene homolog, m. 145°, 42% (CH<sub>2</sub>)<sub>5</sub>(COCl)<sub>2</sub> (from 8.15 g. acid) and 18.3 g. 2,4-O<sub>2</sub>N(C<sub>6</sub>H<sub>3</sub>NH<sub>2</sub>), heated 1 h. at 170-80°, give 55% pimelobis(2,4-dinitroanilide), yellow, m. 188°; it could not be converted into a benzimidazole derivative. 2-Methyl-5-nitro-1-phenylbenzimidazole forms a methosulfate, m. 210° (decomposition) and a methochloride, m. 182° (decomposition). 5-Amino-2-methyl-1-phenylbenzimidazole methochloride-HCl.3H<sub>2</sub>O, m. 190° (decomposition). 2,4'-Diacetamido-4-nitrodiphenylamine, yellow, m. 236°; heated 40 min. with 4 N HCl, this yields 66% 1-(p-aminophenyl)-2-methyl-5-nitrobenzimidazole (V), m. 190° (Ac derivative, m. 108°); reduction over Raney Ni gives the 1-(p-aminophenyl) analog (VI), m. 230° (di-Ac derivative, m. 220°). The methochloride-HCl.4H<sub>2</sub>O from V, hygroscopic, m. above 300°; the methochloride-2HCl.5H<sub>2</sub>O from VI, hygroscopic, decomp. 200°. 1-Methyl-2-(p-

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 nitrophenyl)benzimidazole (4 g.) and 10 mL. MeI in 10 mL. MeOH, heated 3 h. at 120° and extd. with 500 mL. boiling H<sub>2</sub>O, give the insol. methoperiodide, C<sub>15</sub>H<sub>14</sub>O<sub>2</sub>N<sub>3</sub>I<sub>3</sub>, brown, m. 182°; the aq. filtrate deposits the methiodide, yellow, m. 297° (decompn.). 1-Methyl-5-nitro-2-(p-nitrophenyl)benzimidazole (VII) yields a methosulfate, m. 280°; methobromide, pale yellow, m. 255°; methochloride, m. 242° (decompn.). Redn. of VII in EtOH over Raney Ni and acetylation give 5-acetamido-2-(p-acetamidophenyl)-1-methylbenzimidazole, with 0.5 mL. H<sub>2</sub>O, m. 264-5°. Redn. of 5-nitro-2-(p-nitrophenyl)benzimidazole (VIII) in hot MeOH with SnCl<sub>2</sub>

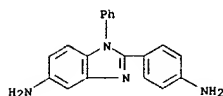
gives 5-amino-2-(p-aminophenyl)benzimidazole-3HCl, m. above 320°; Ac<sub>2</sub>O in in AcOH (40 min. at room temp.) gives 5-acetamido-2-(p-acetamidophenyl)benzimidazole, with 0.5 mol. H<sub>2</sub>O, m. 358°; a methosulfate could not be prepd. 5-Amino-2-(p-aminophenyl)-1-phenylbenzimidazole, m. 265°; di-Ac deriv., m. 207°; methochloride-2HCl.5H<sub>2</sub>O, pale yellow, hygroscopic, m. 210° (decompn.). p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHO (20 g.) in 200 mL. hot AcOH, added to 20 g. 4,1,2-O<sub>2</sub>NC<sub>6</sub>H<sub>3</sub>(NH<sub>2</sub>)<sub>2</sub> in hot AcOH and refluxed 5 h., 450 mL. AcOH removed

by distn. (1 h.) (some VIII recovered), and the filtrate dild. with H<sub>2</sub>O, gives 11 g. 5-nitro-1-(p-nitrobenzyl)-2-(p-nitrophenyl)benzimidazole,

pale orange-yellow, m. 256-8°. 2-(p-Diethylaminophenyl)benzimidazole, buff, m. 232°. 2-(p-Dimethylaminophenyl)-1-methyl-5-nitrobenzimidazole-HCl, m. 259°; the p-diethyl-aminophenyl analog m. 250°. 5-Iodo-1,2-phenylenediamine, silvery, m. 73°; 3,5-diiodo deriv., m. 112°. 5-Iodo-2-oxobenzimidazoline (IX) m. 250°; 5,7-diiodo deriv. (X), m. 230°. Decamethylenebis(5,6-dichloro-3-methyl-1-benzimidazolium) dibromide, m. 232° (decompn.). The following 2-arylbenzimidazoles were prepd. from IX and X with 3,4,4'-I-(HO)C<sub>6</sub>H<sub>3</sub>CHO, 3,5,4'-12(HO)C<sub>6</sub>H<sub>2</sub>CHO, and 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHO: 5-iodo-2-Me, yellow, m. 220°; 5,7-diiodo-2-Me, cream, m. 257°; 2-(4-hydroxy-3-iodophenyl), m. 248°; 2-(4-hydroxy-3-iodophenyl)-1-methyl-5-nitro, m. 232°; 2-(4-hydroxy-3-iodophenyl)-5-iodo, m. 187°; 2-(4-hydroxy-3-iodophenyl)-5,7-diiodo, pale yellow, m. 190°; 5,7-diiodo-2-(p-nitrophenyl), yellow, m. 295°; 2-(p-aminophenyl)-5,7-diiodo, m. 143°; 2-(4-hydroxy-3,5-diiodophenyl), pale brown, m. 193°; 2-(4-hydroxy-3,5-diiodophenyl)-5,7-diiodo, pale yellow needles, m. 193°; 2-(p-hydroxyphenyl)-5,7-diiodo, cream, m. 230°; 2-(4-hydroxy-3,5-diiodophenyl)-5-iodo, pale yellow, m. 200°; 4-(p-dimethylaminophenyl)-5,7-diiodo, pale yellow, m. 158°; 1-(p-iodophenyl)-2-methyl-5-nitro (HCl salt), yellow, m. 216°. 1-(2-Chloroethyl)-2-chloromethylbenzimidazole-HCl, m. 176-7° (decompn.); 5-Cl deriv., m. 194° (decompn.); 6-Cl deriv., m. above 290°; 5-Br deriv., m. 186-90° (decompn.); 5-chloro-6-Me deriv., m. 204-9° (decompn.); 5,6-di-Cl deriv., m. 190-2° (decompn.); 5,7-di-Cl deriv., m. 182-3°. Derivs. of benzimidazole-HCl: 5-chloro-2-chloromethyl-1-Me, m. 301-28° (decompn.); 5-chloro-1-(2-chloroethyl), m. 174-5°; 5-chloro-1-(2-chloroethyl)-6-Me, m. 180-1°; 6-chloro-2-chloromethyl-1-Me, m. 315-17° (decompn.); 6-chloro-1-(2-chloroethyl), m. 197-8°; 5,7-dichloro-1-(2-chloroethyl), m. 202-4°. The following N-substituted derivs. of various anilines were prepd. 4-Chloro-2-nitroaniline: Bu, orange, m. 30-1°; benzyl, orange, m. 68°; 2-hydroxyethyl, orange, m. 104-5°. 4-Chloro-5-methyl-2-nitroaniline: Et, orange, m. 125-6°; Pr, orange, m. 67-8°; iso-Pr, orange, m. 90-2°; Bu, orange, m. 42-3°; benzyl,

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 orange, m. 110-11°; 2-hydroxyethyl, vermilion, m. 171-2°; 2-hydroxypropyl, orange, m. 137-8°; 2,3-dihydroxypropyl, orange, m. 166°. 5-Chloro-2-nitroaniline: iso-Pr, orange, m. 43-4°; Bu, orange-yellow, m. 28°; benzyl, orange, m. 100-1°; 2-hydroxyethyl, red, m. 114-15°; 2,3-dihydroxypropyl, golden, m. 155-6°. 5-Chloro-6-methyl-2-nitroaniline: Et, orange, m. 58-9°; benzyl, orange, m. 54°; 2-hydroxyethyl, yellow, m. 75°. 4,5-Dichloro-2-nitroaniline: Me, orange, m. 148°; Et, orange, m. 120°; Pr, orange, m. 84-5°; benzyl, yellow, m. 104°; Ph, orange, m. 96°; 2,3-dihydroxypropyl, yellow, m. 142°. 4,5,6-Trichloro-2-nitroaniline: Me, orange-yellow, m. 72-3°; benzyl, orange-red, m. 65-6°; 2-hydroxyethyl, yellow, m. 104-5°. 4-Bromo-2-nitroaniline: Et, orange, m. 92°; Pr, red, m. 41°; iso-Pr, orange, m. 98°; benzyl, orange-red, m. 94°; 2-hydroxyethyl, yellow, m. 90-1°; 2,3-dihydroxypropyl, orange-yellow, m. 102-3°. Derivs. of 5-chlorobenzimidazole: 1-Me (HCl salt), m. 243-5°; 1,2-di-Me (HCl salt), m. 277°; 1-Bu (picrate), yellow, m. 185-6°; 2-hydroxymethyl, gray, m. 210°; 1-methyl-2-hydroxymethyl, m. 181-2°; 1-(2-hydroxyethyl), m. 83-4°; 1-(2-hydroxyethyl)-2-hydroxymethyl, m. 150-1°. 5-Chloro-6-methylbenzimidazole: 1-Me, with 0.5 mol. H<sub>2</sub>O, m. 114-15° (HCl salt), m. 255-60°; picrate, yellow, m. 274-5° (decompn.); methiodide, m. 255° (decompn.); methochloride, m. 220-1° (decompn.); 1-Et, cream, m. 87°; 1-Pr, m. 63-4° (HCl salt, with 1 mol. H<sub>2</sub>O, m. 93-5°; picrate, yellow, m. 198°); 1-iso-Pr (picrate), yellow, m. 257°; 1-Bu (picrate), yellow, m. 197-9°; 1-benzyl, m. 155-6°; 1-(2-hydroxyethyl), m. 155-6°; 1-(2-hydroxyethyl)-2-hydroxymethyl, m. 149-51°; 1-(2,3-dihydroxypropyl), m. 140° (3-methiodide, m. 188°; 3-methochloride, m. 239°); 3-(2,3-dihydroxypropyl) (1-methochloride), m. 236-7° (decompn.). 6-Chloro benzimidazole: 1,2-di-Me, m. 158°; 1-Et (HCl salt, m. 211-13°; picrate, yellow, m. 236-7°); 1-iso-Pr (HCl salt, with 1 mol. H<sub>2</sub>O, m. 194-6°; picrate, yellow, m. 211°); 1-Bu (HCl salt, with 1 mol. H<sub>2</sub>O, m. 178-9°; picrate, yellow, m. 147°); 1-benzyl, m. 137-8°; 1-methyl-2-hydroxymethyl, m. 180-2°; 1-(2-hydroxyethyl), m. 146°; 1-(2,3-dihydroxypropyl), m. 156-7° (3-methiodide, m. 172-3°); 1-(2-hydroxyethyl)-2-hydroxymethyl, with 1 mol. H<sub>2</sub>O, m. 178-9°. 6-Chloro-7-methylbenzimidazole: 1-Et (HCl salt, m. 264°; picrate, yellow, m. 211-12°); 1-(2-hydroxyethyl), cream, m. 186-7° (HCl salt, m. 225°). 5,6-Dichlorobenzimidazole: 1-Me, m. 174° (methiodide, m. above 270°); 1,2-di-Me, m. 200° (picrate, lemon, m. 268°); 1-Et, m. 117-18°; 1-benzyl, m. 144°; 1-Ph, m. 131-2°; 2-hydroxymethyl, m. 278° (decompn.); 2-hydroxymethyl-1-Me, m. 195°; 1-(2-hydroxyethyl), m. 162°; 1-(2,3-dihydroxypropyl), m. 152-3° (3-methiodide, m. 216°); 3-methochloride, m. 245-6°; 1-(2-hydroxyethyl)-2-hydroxymethyl, with 1 mol. H<sub>2</sub>O, m. 168°; 5,7-Dichlorobenzimidazole: 1-Me, with 0.5 mol. H<sub>2</sub>O, cream, m. 137-8°; 2-Me, m. 218-19° (HCl salt, m. 300° (decompn.)); picrate, yellow, m. 262° (decompn.); 2-hydroxymethyl, cream, m. 210°; 1-(2-hydroxyethyl), m. 152-3°; 1-(2,3-dihydroxypropyl), yellow, m. 180°; 1-(2-hydroxyethyl)-2-hydroxymethyl, m. 177-8°. 5-Bromobenzimidazole: 1-Me, silver, m. 86-7° [picrate, lemon, m. 264° (decompn.)]; 1,2-di-Me, m. 137-8°; 1-Et, m. 55°; 1-benzyl, m. 112°; 1-(2-hydroxyethyl), m. 92°; 1-(2,3-dihydroxypropyl), m. 140° (picrate), yellow, m. 181°. None of the above Ph derivs. showed activity against

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Trypanosoma equiperdum. Certain compds. showed spasmolytic action of the peripheral musculotropic type when injected i.v. into mice.  
5,6-Dichloro-1-methylbenzimidazole, in particular, caused a mephenesin-like paralysis lasting 24 h.  
IT 57842-33-8, Benzimidazole, 5-amino-2-(p-aminophenyl)-1-phenyl- (and derivs.)  
RN 57842-33-8 CAPLUS  
CN 1H-Benzimidazol-5-amine, 2-(4-aminophenyl)-1-phenyl- (9CI) (CA INDEX NAME)



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ACCESSION NUMBER: 1922:13369 CAPLUS  
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TITLE: Rearrangement of hydrazo compounds  
AUTHOR(S): Jacobson, Paul  
SOURCE: Ann. (1922), 427, 142-221  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AS cf. C. A. 4, 44, 759. A. Rearrangement of di-p-substituted hydrazo compounds. While there are 2 possible isomers which may be formed by the rearrangement of the di-p-compds., when R and R' are different, only 1 o-semidine could be isolated. The difficulty of separation and the possible small amount of the other isomer may account for this. The most powerful directing groups in this connection are EtO and Me. In the case of compds. containing the AcO group, there is either hydrolysis or complete removal of the group. 4-Methyl-4'-iodoazobenzene by the action of KI

upon MeC6H4N2C6H4N2Cl, reddish yellow, glistening leaflets, m. 165-6°. H2S in NH4OH reduces it to the hydrazobenzene, needles, m. 134°. The rearrangement was carried out by heating 10 g. with 12 g. SnCl2 and

30 cc. 25 % HCl. 5-Methyl-4'-iodo-2-aminodiphenylamine (A) is formed in about 40% yield, m. 116-7°. Salicylaldehyde derivative, yellow needles, m. 132-4°. 6-Methyl-1-[p-iodophenyl]-2-mercaptobenzimidazole, by heating A in 10 parts EtOH with 5 parts CS2, fine needles, m. 284-5°. Sodium salt, needles. Mercury salt, needles. Methyl ether, needles, m. 139-40°. For purposes of comparison, 4'-methyl-5-iodo-2-nitrodiphenylamine (from p-MeC6H4NH2 and 3,4-(O2N)2C6H3I, red, felt-like needles, m. 104°) was reduced to the 2-amino derivative, leaflets, m. 86-7°, which gives a red-violet turbidity with FeCl3 and a salicylaldehyde derivative, yellow needles, m. 148°. That the rearrangement product of MeOC6H4NHNC6H4OEt is 4'-methyl-5-ethoxy-2-aminodiphenylamine (Ann. 287, 177(1895)) is proven by its synthesis from 4'-methyl-5-ethoxy-2-nitrodiphenylamine (long, light brown needles, m. 104°) by reduction with alc. (NH4)2S in a sealed tube, and the m. p. of the salicylaldehyde derivative, yellow needles, m. 121-4°. 4-Bromo-4'-ethoxyazobenzene, from EtONa and EtI acting on BrC6H4N2C6H4OH, yellow, glistening needles, m. 135-6°. With Zn dust and NaOH in alc., the hydrazobenzene is formed, needles which soon turn yellow in the dark, m. 81-3°. Rearranged by treating with ZnCl2 and HCl in alc., 4'-bromo-5-ethoxy-2-aminodiphenylamine (B) is formed in a yield of about 48%, needles, m. 67-8°. It was characterized by the following derivs. 1-[p-Bromophenyl]-6-ethoxybenzotriazole, by the action of C5H11NO2, long, pointed leaflets, m. 145-6°. HCO2H gives the benzimidazole, needles, which turn violet in the air, m. 120° and form a colorless formate. Heated with 10 parts 25 % H2SO4 in a sealed tube at 180°, 1-[p-bromophenyl]-6-hydroxybenzimidazole results, pale violet needles, m. 295°. 1-[p-Bromophenyl]-6-ethoxy-2-mercaptobenzimidazole, pointed needles, m. 255°. Salicylaldehyde derivative, small, yellow needles, m. 151°. 5-Bromo-4'-ethoxy-2-nitrodiphenylamine, dark red needles, m. 115°. The corresponding 2-amino derivative, isomeric with B, could not be crystallized but was characterized by the azimide, 1-[p-ethoxyphenyl]-6-bromobenzotriazole,

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needles, m. 129°, and the salicylaldehyde derivative, long, red-yellow needles, m. 146-7°. The rearrangement of 4-methyl-4'-acetoxylhydrazobenzene (Ber. 24, 2310) gives 5-methyl-4'-hydroxy-2-aminodiphenylamine, glistening needles, m. 137°, in 31 % yield; its constitution is established by decompn. into p-C6H4(OH)2 and 3,4-(H2N)2C6H3Me. 6-Methyl-1-[p-hydroxy]benzotriazole, pale yellow leaflets, m. 187.5-9.5°; with EtI and Na it forms an ethoxy derivative, plates, m. 91°. The p-semidine, which is formed in 24 % yield, is MeC6H4NHC6H4NH2 (Ann. 255, 166(1889)). Salicylaldehyde derivative, m. 142°. FeCl3 gives a bluish violet changing to fuchsin-red color, changed by concd. HCl to yellow. 3',4-Dimethyl-4'-acetoxylazobenzene, fine needles, m. 65-6°. The rearrangement was carried out with ZnCl2 in HCl below 35°, and the products sepd. by crystn. from H2O. The p-semidine, 16 % yield, seps. as the HCl salt and is 2,4'-dimethyl-4'-aminodiphenylamine, fine, glistening needles, m. 78.5°. The dil. HCl soln. gives a violet color with FeCl3 and a carmine-red color with NaNO2. Salicylaldehyde derivative, needles, m. 116.5°. The o-semidine, 3',5-dimethyl-4'-hydroxy-2-aminodiphenylamine (40% yield), could not be isolated as such, but was analyzed as 1-[m-methyl-p-hydroxyphenyl]-6-methylbenzimidazole, glistening leaflets, m. 196-7°. Hydrochloride, leaflets. p-Ethoxy derivative, analyzed as the hydrochloride, fine, long, rhombic needles, and as the picrate, flat prisms, m. 186-7°. 4,4'-Dimethyl-5-ethoxy-2-aminodiphenylamine (Ann. 287, 201), m. 89-90°; the methylene deriv., 5-methyl-1-[p-tolyl]-6-ethoxybenzimidazole, forms fine needles, m. 102.5°, and gives a picrate, needles, m. 228°. In the rearrangement of BrC6H4N2C6H4OAc (Ber. 31, 2116) only 5% of 4'-bromo-4-aminodiphenylamine is obtained, compact needles, m. 93.5°. FeCl3 gives a blue-violet color, changing to brick-red. NaNO2 gives a dark red color changing through orange to light yellow. Salicylaldehyde derivative, yellow leaflets, m. 172°. 4-Ethoxy-4'-dimethylaminazobenzene, brown, glistening, 4-sided plates,

m. 149-50°, the hydrochloride of which forms a lustrous, blue, felt-like crystal mass. Rearrangement gave 5-ethoxy-4'-dimethylamino-2-aminodiphenylamine (C), oily. Salicylaldehyde derivative, golden leaflets

with metallic reflux, m. 141.5-2.5°. 1-[p-Dimethylaminophenyl]-2-[o-hydroxyphenyl]-6-ethoxybenzimidazole, glistening needles, m. 182-3°, not hydrolyzed by acids. 1-[p-Dimethylaminophenyl]-6-ethoxybenzimidazole, needles after purifying through the picrate (green-yellow needles), m. 141-3°, forming a double salt with HgCl2. 2,3-Diphenyl-1-[p-dimethylaminophenyl]-2-hydroxy-7-ethoxyquinoline-1,2-dihydrate, by condensation with benzil, fine, canary-yellow needles, m. 187-90°. 5-Chloro-4'-dimethylamino-2-nitrodiphenylamine, from 1,3,4-(O2N)2C6H3Cl and H2NC6H4NMe2, reddish

brown needles, m. 181°. With EtONa, the 5-ethoxy-derivative results, dark brown, pointed crystals, m. 122-3°, which is reduced to C by SnCl2HCl, and identified by the above derivs. Trials with H2NC6H4N2C6H4NMe2, AcNHC6H4N2C6H4NMe2 and Me2NC6H4N2C6H4NMe2 gave only decompn. products. The rearrangement of β,β'-hydrazonaphthalene to 2,2'-diamino-1,1'-dinaphthyl (Ber. 36, 4154) has been confirmed; the salicylaldehyde derivative (2,2'-bis-[p-methoxybenzylidene-amino]-1,1'-dinaphthyl), yellow powder, m. 194-5°. B. Rearrangement of simple p-substituted hydrazo compounds. Methyl 4-methoxyazobenzene-3-carboxylate, m. 65-7°. The free acid forms small, red needles, m. 167°, and upon reduction with Sn and HCl in MeOH forms

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5,2-MeO(H2N)C6H3NHPh (Ber. 29, 2681), the yield being less than 10%. 2,3,4-Me2(AcNH)C6H2N2Ph, upon reduction with ZnCl2 gives 3,3'-dimethyl-4-amino-4'-acetaminodiphenylamine, m. 174-5°. The HCl soln. gives a red-violet color with FeCl3 or NaNO2. The salicylaldehyde derivative, yellow needles, m. 185-6°. The principal product of the rearrangement, however, is 3',4'-dimethyl-2,4'-diamino-5-acetaminodiphenyl, characterized by its benzaldehyde derivative (3',4'-dimethyl-2,4'-bis-[benzylideneamino]-5-acetaminodiphenyl), yellowish

white, m. 204-5°; the salicylaldehyde derivative, pale yellow needles, m. 239-40°, and the acetyl derivative, clear plates, do not m. 360°. C. Rearrangement of non-p-substituted hydrazo compounds. In studying the rearrangement of di-m-substituted derivs., 3,5-dimethylazobenzene, prepd. from PhNO and m-Me2C6H3NH2, b. 17-19 197.5°, was used. On reduction, this gave the hydrazobenzene, long, fine needles, m. 78-9°. The product of the action of ZnCl2 and HCl in EtOH is 2,6-dimethyl-4,4'-diaminodiphenyl (2,6-dimethylbenzidine), long needles, m. 124°. Benzaldehyde derivative, pale yellow, hair-like needles, m. 199-200°. Demamination gives 2,6-dimethylidiphenyl, b. 260-5°, which was also synthesized from m-Me2C6H3NH2 through the diazo compd. and C6H6.

Nitrated at room temp. a trinitro derivative is formed, transparent, 4-sided plates, m. 257-8°, while warming 3 hrs. gave a tetranitro derivative, rectangular microplates, m. 227-9°. 2,4-Dimethylidiphenyl, from 2,4-Me2C6H6NH2, b. 767 270-6°, and giving a tetranitro derivative, m. 154-5°. Finally, attempts were made to det. whether hydrazones containing aromatic and aliphatic groups, or those

of the type (PhCH2NH)2 would behave as above. Pyroracemic aldehyde p-ethoxyphenylhydrazones, orange-yellow leaflets, m. 144.5°. A by-product in the reaction is di-p-ethoxyformazyl methyl ketone, glistening, red needles, m. 143°, sepd. by its insol. in alc. Pyroracemic acid p-ethoxyphenylhydrazones, canary-yellow needles, m. 120-2° (decompn.). Ethyl ester, red needles, m. 110°. The reduction of the Na salt with Na-Hg gives α-[p-ethoxyphenyl]hydrazinolpropionic acid, fine, yellowish white needles, m. 128-38° (decompn.), and reduces cold Fehling soln. Other expts. in this direction were without results. Full expl. details of the above work are found in dissertations covering the period of 1894-1905.

IT 861783-78-0, Benzimidazole-2-o-phenol, 1-p-dimethylaminophenyl-6-ethoxy-

(preparation of)

RN 861783-78-0 CAPLUS

CN Benzimidazole-2-o-phenol, 1-p-dimethylaminophenyl-6-ethoxy- (2CI) (CA INDEX NAME)

